

OCULUS RIFT: THE NEXT GENERATION

EDGE[®]

THE FUTURE OF INTERACTIVE ENTERTAINMENT

EDGE-ONLINE.COM

CLASH OF CLONES

WHAT HAPPENED
TO THE iOS GAME
REVOLUTION?

ELITE: DANGEROUS

EXCLUSIVE:
THE REBIRTH
OF A LEGEND

INSIDE **EVOLVE**,
FROM THE STUDIO
BEHIND LEFT 4 DEAD

THE WONDROUS,
EXHAUSTING
TERROR OF **DAY Z**

AN AUDIENCE WITH
RAYMAN CREATOR
MICHEL ANCEL

REVIEWS

CASTLEVANIA:
LORDS OF SHADOW 2
BROKEN AGE: ACT 1
NIDHOGG
JAZZPUNK
OCTODAD:
DADLIEST CATCH
THE CASTLE DOCTRINE

#264

MARCH 2014

We're all in this together – except for when we're not

How often do you see or hear people who play videogames described collectively as 'gamers'? It's something we do within these pages, but recently we've become particularly conscious of it, and we're going to try to stop. A great many years ago, when videogames were cut from a much narrower piece of cloth, it made some kind of sense, but today, given the astonishing amount of gametypes that exist, on so many devices, it doesn't add up.

Except, sometimes, in the world of Nintendo, which created a platform that put into the same pot the ten-year-old Pokémon-collecting schoolgirl and the 31-year-old tournament *Street Fighter IV* player, along with millions more who'd simply ignored videogames until the arrival of *Wii Sports*. With Wii, it delivered the most accessible videogame console of all time and went on to reap the attendant rewards. But then it created a successor in Wii U that was the most confused, confusing console ever designed – at least to people who understood videogames to be all about waving things in front of a television. (It's no coincidence that today's market-leading handheld console, 3DS, retained the fundamental configuration of its market-leading predecessor.)

So when we see that Wii U is in desperate trouble, with Nintendo forecasting that in FY2014 it will ship 2.8m consoles against a prior estimate of 9m – this only 14 months into the system's life – perhaps we shouldn't be so surprised. But at the same time, how can Nintendo be criticised for taking risks? Without risks, its biggest successes of the past decade would not exist. There will need to be more, not fewer, if the company is to turn things around.

And so to our cover game, *Elite: Dangerous*, a title whose appeal lies squarely with the old-fashioned category of the 'gamer', continuing a legacy that was born in the home computing boom of the 1980s. Best played with a joystick-and-throttle controller setup and enhanced to sensational effect via a virtual reality headset, it is in many ways the antithesis of swing-this-to-bowl-the-ball play. Naturally, for the industry to flourish, we need all game varieties to exist, but this month we showcase a formidable example in the classic mould.



games

Hype

- 42 **Evolve**
PC, PS4, Xbox One
- 46 **DayZ**
PC
- 50 **Wasteland 2**
PC
- 54 **Project Spark**
360, PC, Xbox One
- 56 **Planetary Annihilation**
PC
- 58 **Kirby: Triple Deluxe**
3DS
- 60 **Hype Roundup**

Play

- 88 **Castlevania: Lords Of Shadow 2**
360, PC, PS3
- 92 **Broken Age**
PC
- 96 **Jazzpunk**
PC
- 98 **Nidhogg**
PC
- 100 **Donkey Kong Country: Tropical Freeze**
Wii U
- 102 **The Banner Saga**
PC
- 104 **Octodad: Dadliest Catch**
PC, PS4
- 105 **The Castle Doctrine**
PC



Explore the iPad edition of Edge for additional content



Follow these links throughout the magazine for more content online



74



78

#264

sections

MARCH 2014

Knowledge

10 A new vision

How Oculus is ramping up its VR ambition with Crystal Cove

14 Lens flair

The power of photogrammetry in *The Vanishing Of Ethan Carter*

16 Dragon quest

GungHo president Kazuki Morishita on the success of *Puzzle & Dragons*

18 Paper view

The realtime handicraft behind Sony's unique CES keynote

20 Soundbytes

Jason Rohrer and Gabe Newell offer up their views on Valve

22 My Favourite Game

Pelican's Trevor De Brauw on *Dead Space 3*, *Asteroids* and *Katamari*

24 This Month On Edge

The things that caught our eye during the production of E264

Dispatches

28 Dialogue

Edge readers share their opinions – and one wins a Turtle Beach headset

32 Trigger Happy

Steven Poole examines the claim that *COD: Ghosts* is 'inappropriate'

34 Level Head

Leigh Alexander looks to social media to educate the industry

36 You're Playing It Wrong

Brian Howe weighs up console owners' predilections in porn

Features

62 Dangerous

Into the cockpit with Frontier for the mind-boggling rebirth of *Elite*

74 An Audience With...

Rayman creator Michel Ancel on making big games with tiny teams

78 What Happened To The iOS Gaming Revolution?

The biting issues that have soured the sweetness of Apple's platform

Create

108 People

Indie Game: The Movie man Edmund McMillen, of Team Meat

110 Places

Enter the hostile Africa of *Far Cry 2*'s Leboa-Sako and Bowa-Seko

112 Things

Why Fisher's Trident goggles are the guiding lights of *Splinter Cell*

114 Studio Profile

Inside Lionhead, where a new structure is creating a new *Fable*

118 The Making Of...

How Specular Interactive and Raw Thrills built a *Batman* for the arcade

122 What Games Are

Tadhg Kelly on why denial leads to failure in the game industry

124 In The Click Of It

Clint Hocking on the small but vital intricacies of game design

126 Word Play

James Leach on the downsides of hiring a celebrity voice cast



62



EDGE



118

EDGE

EDITORIAL

Tony Mott editor in chief **Mark Wynne** senior art editor
Nathan Brown games editor **Matthew Clapham** production editor
Michael Gapper news editor **Ben Maxwell** writer
Helen Wilson iPad production assistant **Andrew Hind** art editor
Neil Long editor, edge-online.com

CONTRIBUTORS

Leigh Alexander, Mark Brown, Clint Hocking, Steve Hogarty, Brian Howe, Andrew Kelly, Tadhg Kelly, James Leach, Edward Lewis, Simon Parkin, Steven Poole, Daniel Robson, Chris Schilling, Graham Smith, Chris Thursten, Gary Walker, Philippa Warr, Alvin Weetman

BUSINESS

Steve Turner account manager **Jas Rai** advertising sales manager **Charlie Said** sales director
Adam Jones senior product manager **Sam Wight** group marketing manager **Tilly Michell** marketing executive
Declan Gough head of creative and design **Clair Porteous** deputy MD, film and games
Nial Ferguson managing director, technology, film and games

CONTACT US

Editorial +44 (0)1225 442244 edge@futurenet.com
Advertising +44 (0)20 7042 4219 jas.rai@futurenet.com
UK print subscriptions 0844 848 2852
International print subscriptions +44 (0)1604 250145
Subscribe online at www.myfavouritemagazines.com

FUTURE GAMES UK

Tim Clark group senior editor **Graham Dalzell** group art director

FUTURE UK

Robin Abbott creative director **Jim Douglas** editorial director

CIRCULATION

Matt Cooper trade marketing executive **Rachael Cock** trade marketing director
John Lawton international account manager

PRINT & PRODUCTION

Mark Constance production manager **Frances Twentyman** production controller
Nathan Drewett ad production co-ordinator

LICENSING

Regina Erak senior licensing and syndication manager

If you would like to purchase the images featured in this publication, please visit www.futuremediastore.com or email mediastore@futurenet.com

Printed in the UK by William Gibbons. Covers printed by Philtone Litho Limited. Distributed in the UK by Seymour Distribution Ltd, 2 East Poultry Avenue, London, EC1A 9PT (+44 (0)20 7429 4000)

All submissions to **Edge** are made on the basis of a licence to publish the submission in **Edge** magazine and its licensed editions worldwide. Any material submitted is sent at the owner's risk and, although every care is taken, neither Future Publishing Limited nor its agents shall be liable for loss or damage. All contents © Future Publishing Ltd 2014. While we make every effort possible to ensure that everything we print is factually correct, we cannot be held responsible if factual errors occur. Please check any quoted prices and specs with your supplier before purchase. "How does it feel to be rich?" "Empty," Alex said, and Rafe Zetter laughed.

© Future Publishing Limited 2014. All rights reserved.

No part of this magazine may be used or reproduced without the written permission of the publisher.
Edge is the registered trademark of Future Publishing Limited. All rights reserved.

Future Publishing Limited (company number 2008885) is registered in England and Wales. The registered office of Future Publishing Limited is at Beauford Court, 30 Monmouth Street, Bath BA1 2BW. All information contained in this magazine is for information only and is, as far as we are aware, correct at the time of going to press. Future cannot accept any responsibility for errors or inaccuracies in such information. Readers are advised to contact manufacturers and retailers directly with regard to the price of products/services referred to in this magazine. If you submit unsolicited material to us, you automatically grant Future a licence to publish your submission in whole or in part in all editions of the magazine, including licensed editions worldwide and in any physical or digital format throughout the world. Any material you submit is sent at your risk and, although every care is taken, neither Future nor its employees, agents or subcontractors shall be liable for loss or damage.

Want to work for Future? Visit www.futurenet.com/jobs

Future Publishing, 30 Monmouth Street, Bath, BA1 2BW
Telephone: +44 (0)1225 442244
Fax: +44 (0)1225 732275



We are committed to only using magazine paper which is derived from well managed, certified forestry and chlorine-free manufacture. Future Publishing and its paper suppliers have been independently certified in accordance with the rules of the FSC (Forest Stewardship Council).



Future Future produces high-quality multimedia products which reach our audiences online, on mobile and in print. Future attracts over 50 million consumers to its brands every month across five core sectors: Technology, Entertainment, Music, Creative and Sports & Auto. We export and license our publications.

Future plc is a public company quoted on the London Stock Exchange (symbol: FUTR). www.futureplc.com

Chief executive Mark Wood
Non-executive chairman Peter Allen
Chief financial officer Graham Harding
Tel +44 (0)207 042 4000 (London)
Tel +44 (0)1225 442 244 (Bath)



The ABC combined print, digital and digital publication circulation for Jan-Dec 2012 is **25,571**
A member of the Audited Bureau of Circulations



PRE-PURCHASE

THIEF

~~£29.99~~ **£26.99**

www.gamefly.co.uk/thiefpreorder



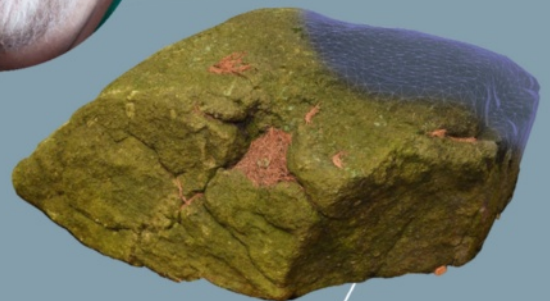
Pre-Purchase Thief from GameFly and get the exclusive in-game mission, The Bank Heist, for **FREE!**

Releases 28 February 2014



KNOW

GAMING WORLD INSIGHT, INTERROGATION AND INFORMATION



WLEDGE

The Oculus Rift VR headset detailed in the cover story of E254 was good, but not nearly good enough for its creator, Palmer Luckey, who debuted his new prototype (1) at January's Consumer Electronics Show. He talks on p10 about the new lateral tracking system, upgraded display and the games showing off virtual reality at its best. On p14, we look at the art and design of *The Vanishing Of Ethan Carter* (2) and how photogrammetry is helping an indie studio build a world to match those of developers many times its size. In Japan, *Puzzle & Dragons* (3) developer GungHo is now worth more than Japan Airlines and has absorbed several developers over the past decade, including Grasshopper and *Ragnarok Online* creator Gravity. On p16, president and CEO Kazuki Morishita talks about the shape of the company he founded and how his mobile RPG took over Japan. Back at CES, Media Molecule provided the papercraft backdrop (4) to a keynote presentation by Kaz Hirai; *Tearaway*'s creative director Rex Crowle explains how the live piece of performance art came about on p18. Valve's Gabe Newell (5) gives up on Greenlight on p20, and in *My Favourite Game* on p22 Trevor De Brauw of Chicago band Pelican (6) discusses Atari emulation, collaborating with EA on *Dead Space 3*'s soundtrack, and why his favourite title still isn't the first one he'd play today.



www.edge-online.com
Up-to-the-minute
game news and views



Explore the iPad edition
of Edge for extra
Knowledge content

A new vision

Crystal Cove technology moves **Oculus Rift** and virtual reality one step closer to your living room





Palmer Luckey, Rift's creator and the founder of Oculus VR

Eighteen months have elapsed since Oculus VR was founded, and in that time the company has been backed to ten times its \$250,000 Kickstarter target, gathered \$75 million in investment funds, and shipped the first development kits of its Oculus Rift headset to its backers. "If someone is going to do virtual reality, they should do it right or not do it at all," Rift creator **Palmer Luckey** says, and his new Crystal Cove prototype is the closest VR has come to being faultlessly right.

The public has been watching Rift the whole way through its gestation, from when it was an unnamed prototype built by Luckey in his house through to its appearance at January's Consumer Electronics Show, where Oculus VR stole the limelight with the first glimpse of its newest prototype. It's a device designed to answer the question that everyone has been asking during the journey: can virtual reality be done properly?

"Virtual reality is the first platform where if you do it badly, you won't just not have fun, you'll actually make people feel bad," Luckey says. "If one

company puts out a bad VR experience, it reflects on the entire industry and it could potentially scare people off." For Oculus VR and its investors, that means the stakes are high.

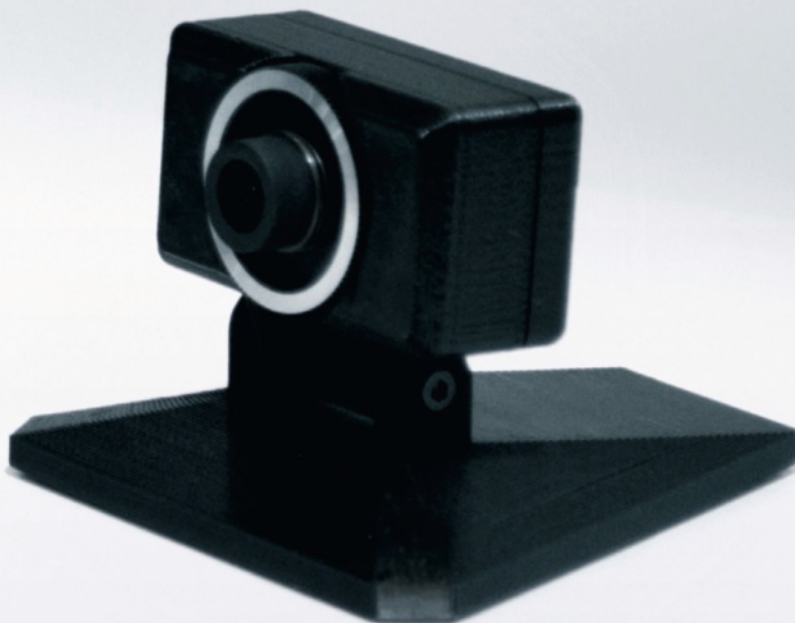
Part of the concern is that the first Rift development kits left plenty to the imagination. Rift was clearly still an extraordinary piece of technology, one that made it seem like virtual reality might finally be practical, but a few final kinks needed to be resolved before it was ready for market. Those kinks included its latency, a low-resolution display and head tracking that was limited to three different movements. Those problems combined made a significant number of players feel nauseous while using Rift.

Crystal Cove tackles these problems by swapping the devkit's screen for a low-persistence OLED replacement, reducing latency, and tracking lateral movements using high-precision position-tracking technology. Together these tweaks represent a tremendous leap forward for the headset.

When Rift's first development kits shipped, everyone who used it noticed the display first of all. It was hard not to: it was placed two inches from your eyes. Hardly hi-res to begin with, up so close pixels appeared large and chunky, while their response time – how quickly a single pixel could turn on and off – was significantly below chief technical officer John Carmack's demands.

Crystal Cove's new low-persistence OLED screen is a novel solution to the problem. Persistence of vision refers to the phenomenon that allows us to view still images shown in quick succession as smooth movement – our brains, for example, filling in the gaps between stills in a movie shot at a traditional 24 frames per second. The low-persistence screens in the Crystal Cove prototypes use this to their advantage, locking the device at a lower framerate than computer monitors. This allows the system to exclude incorrect frames, and instead rely on your brain to fill the gaps between the images it's showing.

Positional tracking is an entirely



Oculus showed this prototype off at CES 2014. The squares all over the headset – some two dozen of them – are infrared LEDs. The camera is able to follow these dots in 3D space, improving the unit's head tracking vastly

RADIO TWO

Before settling on the camera as a solution for positional tracking, Oculus VR prototyped other technologies. "Ultrasonic, infrared, optical infrared, RF, inertial, magnetic: we've looked at pretty much everything," says Luckey. The camera was selected because "nothing else comes close", but second place was radio frequency (RF) tracking. "We haven't been able to get it working with high enough precision," says Luckey. "The reason it remains a frontrunner is that it doesn't really have any line-of-sight restrictions, and because the other solutions... we know for certain to be unusable for virtual reality. In a way [RF] wins because we know the least about it."

different problem. The original Rift development kit could detect when you looked around, but not when you tilted or moved your head laterally. This created a noticeable disconnect between your visual perception of the game world and what the rest of your body was telling you about your own head position. The Crystal Cove unit tackles this by adding a camera to the setup and a set of LED markers on the outside of the headset. It's equivalent technology to the way Hollywood has been replacing real-world actors with digital avatars for years.

The benefits of this new system don't sound like much on paper, but they're an enormous leap forward for virtual reality. "Positional tracking and low persistence work in tandem together to make the world appear to be perfectly stable," Luckey explains. "So rather than have the world blur as you turn your head, everything maintains its same position."

That's important because our perception of 3D depth is based not on the centres of objects, but by comparing their edges. "If those edges are blurred across ten pixels, that means you could be having up to a ten-pixel stereo error," Luckey says. "If those edges are remaining perfectly crisp to each eye, you are able to maintain full stereo perception even as you rotate your head, and that makes an enormous difference in the realism of the scene."

The result is a system that causes next to no "simulator sickness", the phrase Luckey uses to describe wanting to hurl. It doesn't mean you won't ever feel sick while using Rift – human brains still struggle with movement perceived by the eyes while your feet stand still – only that it's less likely to be caused by the hardware. Luckey is keen to remind us that it's also developers who "have to be wary as they develop content to make sure that they're developing things that work well in virtual reality".

Oculus isn't giving away much detail of the exact technical specs of Crystal Cove, since a lot of it is dependent on the company's hardware partners and, as Luckey puts it, "not ours to give away". The camera, at least, was



Elite: Dangerous, currently in alpha, has already been built for TrackIR head tracking and Oculus Rift VR, allowing players to look around the cockpit. Crystal Cove combines these technologies into a single headset

built by Oculus VR itself "from the ground up for virtual reality" and apparently uses "mostly custom hardware". It offers low latency and high precision, though it does complicate the setup, which previously included little more than the headset and a base station with an 'on' switch. Having a camera looking at you means you need to be permanently viewable.

"That is one of the problems: going out of range," Luckey concedes. He downplays the issue, though: "You can turn almost all the way around without losing range of the LEDs on the side of the headset. You can lean down, and you can even usually stand up and stay in range."

He also reminds us that Rift is meant to be used while players are seated. "We're not trying to make something that lets you walk around a room in VR. The liability concerns are one issue. We still do have a cable to this device, so it's not practical anyway. In the final consumer product, you should be able to lean in any direction as far as you can and not go out of range."

The camera is one of the core differences between Oculus Rift and Valve's virtual reality prototype. After January's Consumer Electronics Show in Las Vegas, Luckey and crew flew directly to Seattle to attend Steam Dev Days, a

conference for game developers where Valve's own prototype was first made available for testing.

Oculus and Valve have been sharing information about their research while both have pursued their own prototypes. Valve, for its part, has no intention to ever release and sell its own virtual reality device. Its prototype includes a camera, but one that sits atop the headset and

faces outward into a dedicated room whose walls and ceiling are dotted with black-and-white images that resemble simplified QR codes. It's one step closer to a real-world holodeck, but "obviously it's not practical for a consumer to lay special wallpaper all over

their ceiling and walls and floor to walk around [in] VR", Luckey says.

Developers came back from Steam Dev Days raving about Valve's virtual reality prototype. The two prototypes are apparently roughly similar in terms of technical specification, but Luckey believes "the experience of our consumer device will meet or exceed that room that they've been building".

While Valve shared its prototype with the world, Oculus has also been working closely with developers to grow support for the eventual Rift launch, but that doesn't yet include Crystal Cove being

"The experience of our consumer device will meet or exceed that room that Valve's been building"



out in the wild. "There are only four in existence," Luckey confirms. It does, however, include working with game programmers to make engines like Unity 3D and Unreal support the hardware.

Part of that work was shown at the Consumer Electronics Show via a demo built in partnership with Epic and powered by Unreal Engine 4. Called *Strategy VR*, it was the kind of experience that the original Rift devkit simply couldn't support. The tech demo is set inside a castle. "In the throne room, we plopped down a big, giant table, and on that table is a 3D tower defence game," Luckey says. "You're sitting on the throne looking at this big table and you can lean down and see little tiny characters walking around. There's a big canyon filled with lava that you can look down into. You can shoot missiles and cannon and flamethrowers at all the people. You can lean in close to the scene."

All that leaning in is dependent on the head tracking of the Cove prototype to work, plus the hi-res screen. It blows wide open the types of experiences people can build for Rift when it arrives in consumer hands, going far beyond the early prototypes for *Slender*-style horror games set in dark, blurry dungeons.

Of all the Rift projects currently announced, it's CCP's *EVE Valkyrie* that most excites Luckey. When the game was shown publicly last year, by the



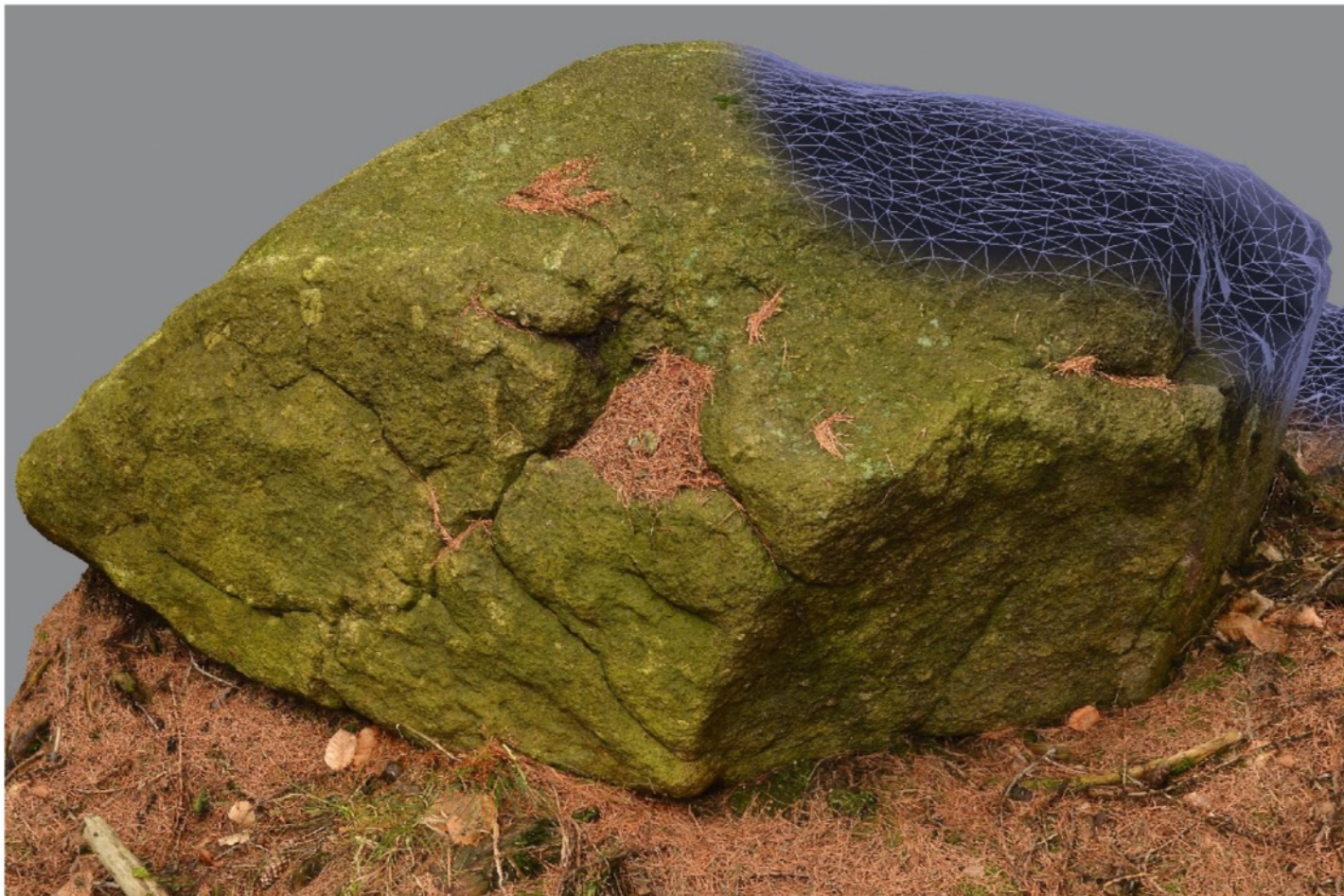
Dangerous is not the only space game built to accommodate VR – CCP's *EVE Valkyrie* (above and left) excites Luckey. Both, however, share a common thread in rendering a cockpit around the player, contextualising the movements onscreen

name *EVR*, it was running on the original Rift devkits. "It's been vastly improved since then," says Luckey. "They've added all kinds of 3D cockpit elements, a few new ships and weapons – it is really an incredible experience. With positional tracking, you can lean around the cockpit and look around at the different things in it. It's a very cool experience."

This brings up another issue. CCP has yet to confirm release platforms for *EVE Valkyrie*, prompting rumours that it might be released as an exclusive for Sony's VR device, which itself is only rumoured to exist. Rumours stack upon rumours, but is Luckey worried about challenges for the virtual reality throne

room? "If they do release something, especially something good, I think it ends up validating the virtual reality market," he says. "Virtual reality is going to take off in a big way. If there's not other people getting into the market, then something is wrong."

A rising tide lifts all virtual ships. Unfortunately, the opposite is true, and a storm might sink everyone. Luckey is aware that a bad early product could just as easily convince consumers nothing has improved since the tech died a public death in the '90s. "That's why I said if someone is going to do virtual reality, they should do it right or not do it at all. And I think that we can do it right." ■



Photogrammetry is a great way of capturing detail, but The Astronauts is deploying it intelligently. The upper branches of this tree, say, don't need the same level of fidelity as the door

Lens flair

The Astronauts on why photogrammetry could revolutionise game making for small teams

Creating game assets is a famously expensive business. With a team of hundreds it's possible to produce your own take on Los Angeles, the Caribbean or even a postapocalyptic Washington DC, but smaller studios have neither the time nor the manpower to build game worlds on that scale using traditional modelling. One solution is procedural generation, which Hello Games is using to create the vast universe of *No Man's Sky*. Another is a science dating back to the mid-19th century: photogrammetry.

Polish studio The Astronauts has employed photogrammetry in creating *The Vanishing Of Ethan Carter's* lush world, and couldn't be happier with the results. In general terms, photogrammetry is the accurate measurement of the environment and objects within it from photographs and other non-contact sensors, such as ultraviolet or thermal imaging. For The Astronauts, it's an affordable alternative to expensive laser scanning (the technique used to capture actors' faces in *Alien: Isolation*) and an efficient route to photorealistic texturing.

"The quality still gets us," says art director **Andrzej 'Andrew' Poznanski**.

"It's sort of mind-blowing. I've seen my fair share of really high quality assets, I've worked with amazing graphics artists, but when I look at [assets created by photogrammetry], it still gets me. No art team, at least in a reasonable time frame, can capture reality and its nuances like photogrammetry.

"There are always tiny details that you lose [when creating assets] – those things that you don't perceive consciously that make or break the reality. That's especially true for how erosion works in reality: how moss moves up the walls and works its way into any crack in the



From top: **Adrian Chmielarz**, game designer, and art director **Andrzej 'Andrew' Poznanski**

LIGHT TOUCH One problem with rendering an object from photographic source material is that you capture it only in a single lighting condition. "The first instinct, since game engines are moving towards truly dynamic global illumination and pixel lighting, is to get rid of that lighting," says Poznanski. "and although at times that's what you need to do, a lot of the realism of that rock that you fell in love with fades away. There's a really tricky balance to keeping as much of those assets' realism as possible, but at the same time make them usable so that you can create a cohesive and amazing piece of work."

pavement, how erosion shoots up the corners of stone blocks, and how rain hits a building from certain angles but not from others. These are all things you think you know, you think you notice them, but when you sit at a computer and create a game asset, you'll most probably miss those things. Photogrammetry adds those things automatically."

All you need to make use of this powerful technique is a camera and photogrammetry software (The Astronauts uses Agisoft PhotoScan, which Poznanski describes as "the best one out there"). Recreating an object takes around 40 to 50 photos to cover every angle once the shots are fed into the software and composited. Any camera will do, even an entry-level point-and-shoot, though the quality of your assets will obviously be dictated by the quality of your kit.

"Of course, it's not quite that simple," says game designer and The Astronauts co-founder **Adrian Chmielarz**. "There's a lot of

work before and after, but the gist of it is you photograph it, get it to the software and there you go: you have an extremely photorealistic in-game asset."

That extreme photorealism pays little heed to memory limits, however. "Realtime graphics love repeating things," Poznanski says. "Repeating assets, tiling textures along entire walls, with carefully placed geometry at angles wherever you need them and only as many as you need. Photogrammetry doesn't care about that. It spits out millions of triangles where you only need a few hundred. It will give you one unique huge 4K or 8K texture where you would otherwise

use a tileable, versatile texture that's probably 64 times smaller, maybe with a few additional details."

The process doesn't quite bypass the artist, then. There's a lot of work to be done post-capture to clean up and optimise textures and objects, and even then they remain large. But thanks to the increasing amounts of graphics memory on PC cards and in Sony and Microsoft's new boxes, these file sizes needn't be a problem. Traditional occlusion methods still work, and play a bigger role in keeping things running at a decent pace.

Poznanski explains: "We've come up with a new method of texture

compression in-house, which allows those huge textures to be two-and-a-half times smaller than they would regularly be in memory.

"[Photogrammetry] requires a lot of tricks, but that's the beauty of it: it still requires talent and experience. It's not like

everyone these days will be able to spit out huge open-world environments. But if you have the skill and you experiment with it a lot, it allows for great things."

Chmielarz agrees: "Once you've figured it out – and it's constantly being improved – it's going to be a way of acquiring really high-quality in-game assets for a lot of studios, not just indies. But it's especially important for indies; we have three-and-a-half artists producing an open-world environment that's something like four kilometres square. If we weren't working with photogrammetry, we would still have a pretty large game, but not to the extent we are shooting for now." ■

"It's going to be a way of acquiring really high-quality in-game assets for a lot of studios, not just indies"

Dragon quest

GungHo president **Kazuki Morishita** on Japan's biggest game and the joys of development

When **Kazuki Morishita** set up GungHo Online Entertainment, he had the foresight to supplement his early forays into development by hosting the Japanese servers for South Korean MMORPG *Ragnarok Online*. It paid off: that game now has 40 million users worldwide, and GungHo acquired its developer, Gravity, in 2008.

But GungHo would dwarf that success upon the release of *Puzzle & Dragons* in February 2012. It's been the top-grossing app in the Japanese App Store consistently since its release, with peak revenue reportedly reaching around \$3.75 million per day.

Now with almost 1,000 staff and a market value in excess of \$10 billion – higher than Japan Airlines – GungHo's subsidiaries include Grasshopper Manufacture (*Killer Is Dead*), Acquire (*Rain*) and Game Arts (*Dokuro*). And yet, as Morishita explains during our visit to GungHo's Tokyo HQ, the focus is not on business but on evolving *Puzzle & Dragons* and making new titles.

GungHo has been around for years, but *Puzzle & Dragons* catapulted you into the collective consciousness. How did you come up with the idea?

At the time, social games were becoming popular. The term 'social game' means something different in Japan; they're games like card battlers, where you buy extra cards and the stronger ones give you a better chance of winning. Everyone was making games like that, and all they changed was the character images on the cards. I thought that was not a good

way to make games, and I wanted to make something that required some skill on the part of the player: a card game with action elements.

***Puzzle & Dragons* has had 23 million downloads in just two years. How do you explain the game's success?**

The puzzle elements appeal to casual users, but the game has a deeper system that appeals to more experienced players as well, like evolving your monsters and so on. I knew that for a lot of people to play the game, it had to be popular with women, and I had this idea that holding the smartphone horizontally would not appeal to them. Holding it upright with

just one hand is more stylish. So we changed the game from its original horizontal orientation to a vertical layout that you can control with just one thumb. That was the major turning point.

Is that a formula you can apply to future games?

No. With hindsight, I could come up with a million reasons for the success of *Puzzle & Dragons*, but I don't think I could apply them to a future project. For one thing, that game is already in the past; it worked well at that particular time, but if we'd released it today, it might not have. Players' expectations change so fast...

As president and CEO, are you closely involved with the business side, or do you focus mostly on development?

I only work on development. Making games is much more fun than business. And besides, without good games, we'd have no business. It's better to leave the



Kazuki Morishita is president and CEO of GungHo Online Entertainment

business dealings to the professionals, like our CFO.

Why did you buy Grasshopper Manufacture last year?

Well, the simple answer is that I met Suda 51. That's all. At first I had no intention of buying the company; I thought they were better off being independent. But we would go out drinking together, and we would talk about it, and somehow the idea rubbed off on me. Suda can do things that I can't. When I make a game, I start off by thinking about the mechanics, but Suda starts by thinking about the game world and the flavour of the game. We complement each other.

Why has GungHo been so aggressive about expansion, particularly overseas?

Well, the wider the potential audience the better, right? I want to find an audience wherever there are people. It's less about finding success and more about finding people who enjoy the games we make. Of course, if the games are popular, then that will generate revenue we can put back into making more games. There are challenges to doing business abroad: the rest of Asia in particular does things very differently from Japan – especially South Korea – but every country has its own quirks.

What would you do if GungHo was closed tomorrow and you had to start again from scratch?

I'd have to start a game company again. Making games is the ultimate happiness – to me, anyway. So I think I'd be OK even if I had to start from scratch. Mind you, if the company did go out of business, I'd certainly be unhappy! ■





The massive, disruptive success of *Puzzle & Dragons* has allowed Morishita to expand his company to nearly 1,000 staff and purchase a number of other development studios



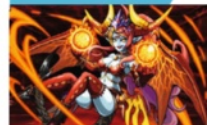
Grasshopper's first title with GungHo is PlayStation 4 exclusive *Lily Bergamo*, which will also be Suda 51's first always-online action game



Divine Gate, GungHo's newest puzzle-RPG, has been downloaded 1.5 million times since its September release. It iterates in the *Puzzle & Dragons* mould

ALTERING BEAST

Morishita on how his free-to-play titan is evolving to survive



Morishita is far from naïve about the future of *Puzzle & Dragons*, but he's optimistic when questioned about the prospects of his social game. "In 2002, everyone said *Ragnarok Online* would never last, but ten years later it's still going," he says. "I don't know that *Puzzle & Dragons* as it stands today will last for ten years, but we will continue to evolve not only the monsters and dungeons inside the game but also the ways to play. For instance, we have an arcade game coming out with Square Enix [*Puzzle & Dragons Battle Tournaments*], and the 3DS game [*Puzzle & Dragons Z*, released in December in Japan], so I think we can make the brand last a long time."



You can see Crowle's work in action as part of Sony's hour-long CES keynote presentation via YouTube at www.bit.ly/1ev6TgM



PAPER VIEW

How real-world play shaped Sony's CES

As Sony president Kaz Hirai spelled out the company's vision for the future during January's CES in Las Vegas, few in attendance realised that the animation playing out on a giant screen behind him was being created in realtime. But behind the scenes, that was the challenge the company's marketing team had set itself – and all it needed in order to make it happen was a motorised 4K camera rig, a very long table, scrolls of paper, piles of props (pictured on these pages), and some fast-moving brains and hands to make it all play together nicely.

"As we worked through the scrolls, and matched it all up with Kaz's speech, we jammed together on ideas that would bring the artwork to life and really make it a live performance," explains **Rex Crowle** of Media Molecule, who worked with events company Stungun Productions to make it all happen. Watching it play out, it looked like a job executed with precision from start to finish, but Crowle admits that the team ran into a few minor hitches. "Being at the artistic end of the scale, it wasn't until just before the final event that we noticed the word 'experience' was misspelled!" he laughs. "So a quick bit of real-world cut-and-paste with scissors and paper had to happen to add that into the artwork. But we didn't try to hide the edit – we made it deliberately bold and stuck-on, [because] it was more in keeping with the overall approach."

The result? A unique CES keynote that felt as much handcrafted as it was focused on hard tech. Dare we ask for something as innovative for Sony's E3 press event in June? ■

Soundbytes

Game commentary in snack-sized mouthfuls



"The God Of War comparisons really pissed us off."

Castlevania: Lords of Shadow producer **Dave Cox** may want to skip our LOS2 Post Script

"Sales screw your fans."

They want to get your game as soon as it comes out. You kick [them] in the teeth when you put your game on sale."

The Castle Doctrine developer **Jason Rohrer** presents his beef with Steam sales



"Our goal is to make Greenlight go away,

not because it's not useful, but because we're evolving."

It hasn't proved particularly useful either, has it, **Gabe Newell**?

"Compared to PS3, Vita has had a higher percentage of games bought digitally. It demonstrates how people

look at it as the iPod of handheld gaming."

PlayStation UK MD **Fergal Gara** is possibly ignoring Apple's iPod of handheld gaming



ARCADE WATCH

Keeping an eye on the coin-op gaming scene



Game *Super Alpine Racer*
Manufacturer Namco Bandai/Raw Thrills

Namco won't give up. The company was built on arcades and remains a staunch investor in the scene, its biggest games – *Deadstorm Pirates*, *Pac-Man Battle Royale*, *Gundam Wangan Midnight Maximum Tune*, *Mario Kart Arcade GP*, *Tekken* – receiving updates that keep it swallowing as many coins in the west as in Japan. But there are clear differences between the two regions, with Japan favouring the competitive thrills of *Gundam Wangan Midnight* and *Tekken*, and the west preferring more immediate games. Namco couldn't have a more capable western partner than Raw Thrills.

This *Alpine Racer* revival, with its 'Super' prefix, is framed by Namco as a remake of the 1995 arcade classic. But with new characters, new courses and a whole new engine, it's more like a sequel, especially when housed in its typically ostentatious Raw Thrills cabinet. The American company handled the hardware, bolting a vertically mounted 55-inch display, countless LEDs and a fan to the familiar control platform for little reason other than sheer showmanship. It's a spectacular presence in any arcade with space enough to handle it, which won't be many, given it's a towering 2.5m. Still, it's the perfect game for the end of a pier, where ceilings are high and a good gimmick is still a powerful draw.



Our digital edition is now available on a wide range of devices



Start your free trial today*



*Free trial not available on Zinio

My Favourite Game

Trevor De Brauw

Pelican's lead guitarist on the pressures of parenthood, Indiana Jones' videogame legacy, and *Dead Space 3*'s soundtrack

Trevor De Brauw is a busy man. Perhaps best known as the guitarist for, and a co-founding member of, Chicago post-metal band Pelican, he has also found the time to play in Tusk, Bee Control, Teith, Let's Pet and Pelican offshoot Chord. On top of all that, he works as a publicist at independent music PR firm Biz 3, recently became a father, and began playing live shows under his own name again last year. We catch De Brauw just before a recording session to talk about the games he enjoys in his limited free time, and why *Raiders Of The Lost Ark* hasn't changed with age.

With so many projects on your plate, and now a son, how on Earth do you find any time to play games?

[Laughs] I would say gaming was my hobby until my son was born, but since then there's been a major drop off, unfortunately. I did download an Atari 2600 emulator last night, however, which I managed to spend ten minutes with! I downloaded it because I was thinking about this interview, and my history with gaming, and that was the system I had my earliest gaming memories with. I was trying to remember how Atari's *Raiders Of The Lost Ark* played. Turns out it is as perplexing now as it was when I was a boy; I still can't get past the third screen.

Was *Raiders Of The Lost Ark* the first game you played, or at least started?

I can't really differentiate between which games came earliest during my time with the Atari. My older brothers had the system in the house, and so it was just something that I picked up gradually over

BIRDSONG

Pelican returned from a four-year hiatus last year with the release of *Forever Becoming*. The band's members had taken time out to focus on other projects and jobs after a punishing touring schedule took its toll. Founding member Laurent Schroeder-Lebec didn't return, however, but Dallas Thomas from alt-rock outfit *The Swan King* has taken up the reins. Pelican has long been associated with the post-rock scene, and has been compared to acts such as Mogwai, *Explosions In The Sky* and even *Godspeed You! Black Emperor*. But while the band is instrumental and exploits the building song structures associated with the genre, Pelican is a heavier prospect that more often ventures into metal territory.



time. But I loved *Asteroids* and *Superman*, and the 2600 version of *Donkey Kong*.

Your track, *Ephemeral*, rounds off *Dead Space 3*. How did that come about?

It's as simple as [EA] approaching us. If I'm totally honest, we hadn't heard of the game before that point. But we looked into it and played the game, and it was pretty cool, so we went for it.

Did being on the game's soundtrack gain you any fans?

It definitely seems to have exposed us to a different audience, which is really cool.

That's something that you hope for when you place a song somewhere – whether it's a film or compilation CD – that you're reaching people who wouldn't have heard your band otherwise. It certainly seems to be paying off. We keep hearing from people now [who] heard of our band through the game.

Pelican's music lends itself well to soundtracks. Have you ever considered scoring for films or other games?

Yeah, I would say absolutely. It's something we used to talk about a lot years and years ago, but we just never received any offers! Now we're sort of at a phase in the band where it's not full time any more and we all have jobs outside of the band, so it would probably be a lot more difficult to do something like that these days, but we're definitely open to it. When we were having our

early successes, we were like, 'It's interesting that this band is instrumental; I wonder if people are going to contact us about putting our songs in movies and games?' Unfortunately, until *Dead Space 3*, nobody did [laughs].

What's your favourite game, and why?


This is a tough one, but what I'll say is that my favourite game of all time is *Asteroids*. But if I were to go play a game right now, I would want to play one of the *Katamari* games. I find those games completely, mind-fuddlingly awesome and original. There's something

about them that creates almost this completely different view of gaming. It's something that's so innocent and weird, something completely bizarre that takes you into another world. But then also the fact that your sense of scale changes

as you play the game I think is a really interesting programming feat as well. When you begin a level, you're tiny, and there's this overwhelming world all around you. But as you continue to move through the level, you become this overwhelming thing and everything around you is sort of small. It's just great.

With its slow builds and huge crescendos, you could almost make a comparison between *Katamari*'s level structure and Pelican's music.

[Laughs] I'd never made a connection between Pelican and *Katamari* before, but thank you for taking me there! ■

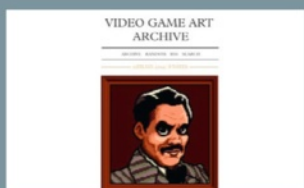


Pelican is (from left)
bassist Bryan Herweg,
guitarists Dallas Thomas
and Trevor De Brauw, and
drummer Larry Herweg

WEBSITE

The Video Game Art Archive

www.bit.ly/1e12eqC
The Videogame Art Archive is a gallery of paintings and pictures stolen from the walls of videogame spaces, from *Ocarina Of Time*'s poes to *The Addams Family*'s family portraits. In games, the images – often little more than a smudge of pixels, as in the case of most of *Metal Slug*'s artworks – served the purpose of space-filler, puzzle clue or door to another world, but here in collected form they stand alone in a place where detailed renders (*Final Fantasy VIII*, *Super Mario 64*) sit beside total abstraction (*Earthbound*, *Dark Seed*). The archive's focus on classic games limits its scope, but it's possible the images hanging on game spaces' walls have grown more predictable and less interesting than they were when artists had to make do with a canvas of 16x16 pixels.



VIDEO

Super Punch-Out!! Blindfolded

www.bit.ly/1i8Zwj5
January's Awesome Games Done Quick raised over \$1m for the Prevent Cancer Foundation – not bad for an event whose 2010 debut, *Classic Games Done Quick*, made \$10,000. The highlight is Zallard1's blindfolded *Super Punch-Out!!* run. This 25-minute display of muscle memory and timing drives the crowd wild, and AGDQ's appeal lies as much in the passion of the players as their skills. Also worth a watch are a fourplayer *Super Metroid* race and an astounding run of *F-Zero GX*'s story mode.

WEB GAME

Catlatral Damage

www.bit.ly/1cYfjMc
Part videogame, part hard-hitting documentary, *Catlatral Damage* places you behind the paws of a cat laying waste to its owner's apartment. What begins as an easy joke – cats are jerks – ends as a delight. Cats, it seems, do what they do because being a feline wrecking machine is fun, and *Catlatral Damage* works like *Katamari Damacy* in reverse. Rather than turning the world's clutter into a single ball, you plunge your owner's neatly ordered world into chaos as books, videogames, TVs, shoes and cushions tumble to the ground at the bat of a paw. Originally designed for 2013's 7DFPS game jam – meant to keep firstperson shooters interesting – Chris Chung's Unity-powered mischief maker is in alpha and has been greenlit on Steam, with more levels, props and Oculus Rift support planned.



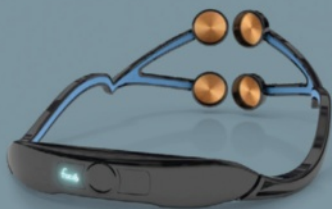
THIS MONTH ON EDGE

A few more things that summoned our attention during the production of E264

PERFORMANCE ENHANCER

Foc.us (shop.foc.us)

As product promises go, "overclock your brain using transcranial Direct Current Stimulation" must rank among the least appealing, but the unfortunately named Californian start-up Foc.us claims its eponymous £179 headset can do just that, boosting your concentration and reaction times to make you better at games. TDCS experiments dating back to the '60s suggest it can improve memory and learning, and DARPA has used it for training snipers, but after a week playing *Resogun*, *Super Hexagon* and *Trials Evolution* with a Foc.us, we've noticed little benefit. What we can confirm is that the "tingle" described in Foc.us's documentation feels a little closer to a rug burn administered to the temples.



continue

New frontiers

China lifts its ban on foreign consoles

IAP IOU

Apple pays out \$32.5m to refund "accidental" in-app purchases by children

SimCity offline

Maxis finally brings the power of the cloud back down to Earth

Rusty win

With the stunning success of *Rust* and *DayZ*, a genre is born

quit

Old problems

How many western games can escape Chinese censorship?

Dread Rising

A 13GB patch for DLC you don't have? Lovely

Tube strike

YouTubers paid to hawk Xbox and EA? In print, that's labelled an 'advertising promotion'

Candy crushed

King.com trademarks 'candy'. Swap the 'C' for a 'K' and carry on

TWEETS

I once inadvertently packed one less undershirt (at E3) and the last day wore a T-shirt with Wii U logo I got at the Nintendo booth.
Shuhei Yoshida @yosyp
President of Worldwide Studios, SCE

If I was leading Nintendo now I'd be looking at an Ouya-priced next console, purely digital. Delivering new titles and complete back catalogue.
Will Luton @will_luton
Developer, TinyCo

I wonder if I could convince Sega to give me the rights to make *Space Channel 5*.
Jonathan Blow @Jonathan_Blow
Developer, Braid, The Witness

Just invoked fog as thick and occluding as *Turok: Dinosaur Hunter* on N64 to solve a game design problem and now I think everyone hates me.
Manveer Heir @manveerheir
Gameplay designer, BioWare



www.twitter.com/edgeonline
Follow Edge on Twitter





Break into games - win a BAFTA!

Are you studying to become a game artist, designer or programmer?

Do you dream of entering the games industry?

Dare to be Digital is the world's leading computer game design competition for students, hosted and run by Abertay University.

Each year 15 teams of five students come to Dundee to build a brand new game in just eight weeks. Industry experts will mentor you throughout, sharing their years of experience.

At the end, your game will go on show to thousands of members of the public at the Dare ProtoPlay games festival, 7th-10th August, in Dundee's Caird Hall and City Square.

Apply now for your chance of a life-changing summer with Dare to be Digital – and next March you could be picking up your own BAFTA Ones to Watch Award!

Apply now: www.daretobedigital.com



enquiries@daretobedigital.com



[@daretobedigital](https://twitter.com/daretobedigital)



[daretobedigital](https://facebook.com/daretobedigital)

- LIMITED QUANTITIES -
PRE-ORDER FROM **GAME** AND RECEIVE
A FREE DARK SOULS II T-SHIRT

BLACK ARMOUR EDITION




COLLECTIBLE METAL CASE



"DARK SOULS II IS A DEADLY BEAST OF A GAME"
THE GUARDIAN

www.DARKSOULSII.COM

 @NamcoBandaiUK #DarkSoulsII



* For PS3 and Xbox 360, PC release to be announced. Images & specifications are tentative unless otherwise stated at the time of publishing this ad and are subject to change. For questions please go to namcobandai.games.EU
DARK SOULS™ & ©2014 NAMCO BANDAI Games Inc. ©2011-2014 FromSoftware, Inc.
"PS", "PlayStation", "PS3", "P3" and "PS" are trademarks or registered trademarks of Sony Computer Entertainment Inc. Xbox, Xbox 360, Xbox LIVE, and the Xbox logos are trademarks of the Microsoft group of companies.

FROM SOFTWARE



A promotional image for the video game Dark Souls II. It features a character in dark, ornate armor with a large fur collar, seen from behind. The character is holding a sword in their right hand and a shield in their left. The background is a dark, misty landscape with some distant structures. The title "DARK SOULS II" is written in a large, stylized, orange-glowing font across the middle. Below it, the tagline "GO BEYOND DEATH" is written in a smaller, white, serif font. At the bottom, the release date "14 MARCH 2014" is written in a white, serif font.




DARK SOULS II

GO BEYOND DEATH

14 MARCH 2014

DISPATCHES

MARCH

In Dispatches this issue, Dialogue sees **Edge** readers firmly against the use of microtransactions, discuss the decline of high street videogame retailers, and question why many FPSes tend to focus on who you're fighting, rather than what you're fighting for. Elsewhere, **Steven Poole**  investigates the claim that *COD: Ghosts* is 'inappropriate', **Leigh Alexander**  thinks the industry could learn something from the social media responses to physical games, and **Brian Howe**  scrutinises the pitiable and surprising gulf between PS4 and Xbox One porn rental statistics.



www.edge-online.com
Discuss gaming topics with
fellow **Edge** readers



Issue 263

Dialogue

Send your views, using 'Dialogue' as the subject line, to edge@futurenet.com.

Letter of the month wins a Turtle Beach Ear Force PX4 headset

Turtle Beach's Ear Force PX4 (RRP £149.99) is compatible with PS4, Xbox One and PC setups



Nickle and crime

I was going through the February issue of the mag (E263), and found myself at the article regarding microtransactions, which to me is probably the dirtiest word in gaming at the moment. I've been gaming for a very long time, and to be honest this practice has me deeply concerned.

As you said, both PS4 and Xbox One are guilty, and I feel Microsoft is a lot worse – *Forza* being a case in point. Had I known the game was so heavily reliant on microtransactions, I would never have bought it. Paying £55 for a game that was clearly designed to force you into paying for content that should have been available is almost criminal in my opinion. Plus the game isn't really that good, and is very bare as it is. I'm all for people making money, but this is ridiculous. I'll definitely think twice

before buying another *Forza* title. I know that it's not the only one, but for me it's the worst; then having the audacity to lie about it and say it's about giving players choice, and allowing them to appreciate the cars they do have, is just salt in the wounds. Having said all that, I'm looking forward to what I hope will be some amazing titles in 2014, without horrible microtransactions.

Stephen Brown

That both *GT6*'s and *Forza 5*'s real-money payments were quickly curbed is a clear message, but we certainly haven't seen the end of this practice. The alternatives? Our next caller has some suggestions.

Next-gen transactions

If a videogame is the manifestation of a developer's vision, then what are we to make of microtransactions? It strikes me that, unlike other revenue-generating approaches, microtransactions fundamentally affect game design. In Supercell's RTS, *Clash Of Clans*, players are forced to wait excruciating lengths of time to build or upgrade their items, or eliminate the wait with cash payments. Neither approach is satisfactory. Did the designer expect us to weigh up the opportunity cost of each specific action or not? Does Kazunori Yamauchi want us to feel the struggle of a driver going from zero to hero in *GT6*, or the power of a rich man buying his way to success?

Worse, the impact of real cash changes our gameplay decisions. The latest *Cut The Rope* sequel presents gameplay tools as puzzle-solving options, whilst charging when they're exhausted. Imagine a *GTA* where it costs you 50p every time you damage another car – it castrates your creative freedom, making you play hesitantly and fearfully.

In *Edge*'s feature on 'digital playthings', NaturalMotion CEO Torsten Reil claims to have stopped defending free-to-play, since it's the dominant business model for the future. But I can't accept that a business which changes the design of games to a binary choice of 'grind or god' is the best option. Given that many consumers don't want to pay console game prices for content, I suggest we look to movies, with different points of access for different consumers; from the premium cinema experience,

through DVDs, rentals, subscription and eventually free on TV. Let the dabblers access for free with microtransactions, let me pay £40 for full access, let the fans pay even more for premium early access, offer a 'pay per day' option, and give us a Netflix-style subscription service. Not mutually exclusive alternatives, but an industry-wide model built on choice that's predictable, universal, clear and understood.

Vladimir Imp

A true universal standard may be too much to ask for in an industry that has long preferred proprietary systems and services. There are signs of progress, however, from short-term rentals in *Wii Sports Club* to PlayStation Now's subscription. Fret not: there'll be no nickel-and-diming from your new Turtle Beach headset.

Retail therapy

I'm continually amazed at the lack of advances videogame stores make in order to survive and stay competitive here in the UK. Back in March 2012, high street retailer Game went into administration, resulting in almost 300 stores closing down – with more than 2,000 staff laid off. If we were pointing the finger, we could certainly say Game simply had too many stores, in some cases mere streets apart. A more significant and increasing factor could be the rise of digital purchases, made mainstream through Steam and since reproduced by the likes of Microsoft, Sony and the other big guns.

Perhaps too optimistically, I expected this to be a wake-up call for high street retailers and act as a catalyst to seeing big changes in stores. Having multiple booths, so that people can come in and try out the games, would be one. You could even have a big fat order button so that the game can be ready and packaged by the time you reach the counter. Innovative solutions also exist to counter online prices. Providing free Wi-Fi would be one, to automatically connect customers to the online store of your shop, so that customers read online reviews on your website without going directly to websites such as Amazon.

I took a rare trip into my local Game and was dismayed (yet not surprised) to find that the consoles behind their protective screens were switched off. Rows of

identical empty boxes filled the shelves, and the two employees were busy talking with other customers. I didn't stick around.

Some of the uproar when the Xbox One was announced concerned the restrictions imposed on physical copies, since reversed. Yet without high street retailers fighting back, it won't be long until such debates will be moot, as the advantages of digital downloads are too much for even hardcore traditional gamers to resist. I hope that 2014 sees both online and offline stores flourish.

Michael Entwistle

You're not wrong, and yet Game had such a good Christmas that it's planning a return to the stock market. Until console download pricing becomes more competitive, the high street will always have its place.

Mobile Mario

I normally find that financial analysts are professional guessers whose pronouncements are best ignored, but with another set of dismal financial results, hefty pay cuts for top brass and Wii U sales still in the doldrums despite the release of *Super Mario 3D World*, it's starting to seem like they may have a point. With no recovery in sight, how much longer can Nintendo continue to resist moving over to mobile?

The very suggestion of one of gaming's most prized companies going mobile seems to inspire abject horror in people. Clearly Freemium's reputation is to blame, but not every mobile game is some pay-to-win, Facebook-badgering fruit machine reskin. Given that Nintendo has been a constant innovator throughout its time in the game industry, it could surely help make the App Store a better place — and there'd be plenty of money in doing so. One wonders how many more pay cuts Iwata et al will have to take before the penny finally drops.

Dominic Turner

It doesn't look rosy at the moment, but Nintendo has the cash reserves to ride out what looks set to be a rough generation. Will Iwata stick around to see it through to its conclusion? That's another matter.

A nation in conflict

When I heard that *Battlefield 4* was banned in China due to its "inaccurate portrait of a hostile China" and "threat to national security", I wasn't surprised. After all, our government has a long history of banning videogames on unreasonable bases. I bought the game the day after I knew it was banned, as it made me feel curious (rebellious?). Politics aside, what I find frustrating is the singleplayer story.

Gamers have fought against German Nazis, the Japanese, the Russians, Arabs, the Vietnamese, the North Koreans, recently the South Americans (in *Call of Duty: Ghosts*), and now, in *BF4*, the Chinese. I understand that a good story should always have conflict — between man and nature, a character's different personalities, or in this case nations. However, recent FPSes put too much emphasis on the enemy/stage of battle instead of the idea that should be fought against. Saving Private Ryan is a good movie,

"I bought the game the day after I knew it was banned, because it made me feel curious"

not because it is about fighting German soldiers. Instead, it shows the heroic action of a group of soldiers fighting against nearly impossible odds to bring one soldier home. Without the idea, the film would only be a montage of special effects. *Spec Ops: The Line* asks gamers to make excruciating decisions, and thus allows us to experience

not only the desolation of a wrecked Dubai, but also the torment of war. These elements — the real conflict — are missing in the *Battlefield 4* singleplayer campaign.

In an interview at TGS 2013, DICE producer Daniel Matros mentioned that the team chose Shanghai as the map of multiplayer and singleplayer campaigns because it would be cool to fly helicopters through the skyscrapers, and there would be battles between infantry and all kinds of vehicles. This would be fine for a multiplayer campaign, and the *Battlefield 4* multiplayer is more than just fine! But a good stage is not enough for a convincing and meaningful story. *Battlefield* has always focused more on its multiplayer department. Nevertheless, future FPS titles can learn a thing or two from its mediocre singleplayer. **Name supplied**

ONLINE OFFLINE

Join the discussion at www.facebook.com/edgeonline

Dead Space and *Resident Evil* are now "a couple of degrees away from being *Gears Of War*," according to **Creative Assembly**

Dead Space is such a good survival horror game, probably my favourite game of the last generation. They definitely missed a trick in their later iterations.

Harry Stuart Chalcraft

There's never a limited supply of mechanics, just ideas. I want to live in a world where I have to have my face scanned by Kinect to gain access to sci-fi space-doors, all the while being pursued by something slow and mental. I want to, literally, get up off my couch and physically have to put my face by that stupid little lens... with a rumble pack strapped to my arse.

Jono

True, *RE6* was a turd. *Dead Space* is fucking great, though. Excited for *Alien Isolation*.

Michael Majewski

"*Resident Evil* is dead." *RE6* sold 4.9 million copies.

Darren Russell

Year Walk was a game I found unsettling. Loneliness and isolation has always been a large part of gaming. *SOTC*, *Tomb Raider* and so on. Perhaps it's been the technical limitations that have fostered so many?

Alan Mitchell

Battlefield 4's lacklustre singleplayer has one reader lament the state of FPS campaigns. War is about so much more than just the enemy



Specialist magazine of the year

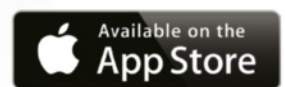
Digital Magazine Awards 2013



Try two free issues of our iPad edition
today – search “**Edge**” in the App Store



You will receive two free issues (the current issue and the next issue) when you start a no-obligation trial subscription. Available to new subscribers only.
iPad is a trademark of Apple Inc., registered in the US and other countries.
App Store is a service mark of Apple Inc.





STEVEN POOLE

Trigger Happy

A Christian youth leader has called *COD: Ghosts* 'inappropriate'. Steven Poole investigates the claim

An anthropologist friend recently told me about a London youth group run by a Christian faith school where the assembled teenagers liked nothing more than to play the new *Call Of Duty*. This pained the group leader, who suggested that the game was 'inappropriate'. Apparently, it would have been fine to play *FIFA*, but not a bloody bulletfest such as *COD: Ghosts*.

This use of 'inappropriate' is a hilariously mealy-mouthed sign of our times. By calling something 'inappropriate', one avoids saying it is actually wrong or forbidden. Perhaps it is actually wrong or forbidden, but the speaker is pretending to be a friend rather than an authority figure. Or perhaps it isn't wrong or forbidden at all, but the authority figure still vaguely disapproves of it, and so

deploys 'inappropriate' as wheedling emotional blackmail.

In any case, the fragfest-loving teenagers of the youth group were not stupid. They argued that *COD: Ghosts* was structured around themes of duty and sacrifice – basically, like Jesus. I tip my hat to them. Indeed, they could have gone on to argue that *COD* was therefore much less inappropriate than *FIFA*, which would surely brainwash them into adopting the values of wife-beating, spit-roasting and ear-biting football-celebrity culture.

In a quest to find out just how 'appropriate' *COD: Ghosts* was, I sprinted, swam, floated and snap-aimed my way through the whole singleplayer campaign. This is something I have not bothered to do in a shooter for years. But since *Ghosts* tragically abandons the almighty Spec Ops co-op mode, I sure wasn't going to do anything else with it.

The first and almost the last thing you do in *COD: Ghosts* is tool up as a kind of psychopathic rifle-toting Sandra Bullock for a version of the movie *Gravity* that has similarly glittering destruction of orbital structures but also lots of balletic zero-G murdering of spacesuited enemies. I did worry momentarily whether it might be 'inappropriate' to fire a high-powered gun inside the (presumably thin) walls of a space station, but duty called, after all. Keeping Christian-friendly themes in mind, I also made sure to appreciate the awe-inspiring view of Earth.

It wasn't long before I was trundling through a city in a tank with a friendly dog's head poking out of the hatch; rappelling head first down the side of a skyscraper before it blew up; flying a chopper and blowing stuff up with it; racing across the burning and listing deck of an aircraft carrier that was in the process of being blown up; infiltrating an oil rig to, I don't know, blow it up or something; and actually driving a tank (a future-tank that handles like a go-kart) frenetically around an airbase, trying (I think) to blow stuff up.

On PS4, all this was very pretty. (The higher resolution also makes it more satisfying, since the men you are shooting in

the face look more detailed at the same distance.) It was also no less stupid than it had ever been. My brother in arms (geddit?) made no comment if, while we were patrolling alone, I let off a frag grenade three feet from his legs. The much-publicised dog, Riley, is one of those bulletproof dogs until he is shot with some kind of special bullet and you have to carry his whimpering body through a firefight. The final scene of the game is crashingly cynical. And the mission failed index cards – "Killing civilians will not be tolerated!" – were all too reminiscent of a schoolteacher suggesting sorrowfully that my behaviour was 'inappropriate'.

Even so, the game was tremendously entertaining. People are snobbish about the *CODs*, but *Ghosts* is obviously a work of immense artistry. To complain that it doesn't teach us anything about the human condition would be a category mistake. (It would be an 'inappropriate' criticism.) The game should be judged on its own terms. It wants to be a relentlessly beautiful and stupidly exciting action blockbuster, so it

fails only if it is ugly or boring. Personally, I found the underwater shooting sections a bit tedious (and yet look at all the work they put into the seaweed and the fish!), and the crawling-interminably-through-grass bit frankly dull (not enough work put into grasshoppers, earthworms and so on). But mostly the game is quite extraordinary as sheer

hurting interactive spectacle.

It's true that *Ghosts* doesn't redefine the shooter for next-gen consoles, but this kind of shooter may be something that most fans don't want redefined, just as they're not interested in changing the rules of football simply for the novelty value. And, after all, very few humans can live on the arthouse alone. No one wants all games to be like *Ghosts*, but as part of a varied cultural diet, the odd *Call Of Duty* is hardly 'inappropriate' at all. And, as those canny teenagers noticed, it's not even un-Christian. As Jesus once famously said: "I come to bring not peace but a sword, an AK-12 with ACOG sight, and massive space-based projectile weapons."

Steven Poole's *Trigger Happy 2.0* is now available from Amazon. Visit him online at www.stevenpoole.net



CONFERENCE MALMÖ, 21-23 MAY 2014



REGISTER NOW AT
WWW.NORDICGAME.COM



marshdaves.com



LEIGH ALEXANDER

Level Head

Can social media responses act as a social dipstick? If so, perhaps the industry has a lot to learn from physical games

The phrase 'social gaming' has become a rather ugly one, hasn't it? Play is a social behaviour, and the industry rightly suspected long ago that social gaming would become a meaningful trend. But a bad taste lingers because of all the strange ways game companies misread our urge to share — we think of voracious Zynga-alikes colonising our Facebook lives, and the disingenuous business models that force users to either mass-spam their friends repeatedly or spend real money to continue enjoying a shallow farming simulator.

The Facebook gaming bubble has, if not burst, considerably deflated; at the very least, it's gracefully stepped down from the prow of game development. But social life is still central to the way we think about the future of games — these days, we just look elsewhere.

The explosion of online communities over the past five years has affected videogames indelibly. Now developers can build and evolve their products in the public eye, adjusting for the responses and experiences of their most passionate players. Sharing of thoughts, pictures and videos has not only changed the way we experience games, but games are now being designed around that proliferation urge, made to be watched, streamed and commented upon. It's even become a part of a modern console's remit to aid sharing.

Whether the gaming community online is a safe, good place for all fans to coexist has become a crucial question. Not only is it of deep personal importance for fans of gaming culture, but publishers are slowly beginning to take note. After all, it's not good for business if mainstream headlines about homophobia, sexism and harassment scare players away from the online services on which the console business increasingly depends. Early in 2013, EA held a Full Spectrum event in New York City to talk about addressing inclusivity problems, with a focus on what players say online. The site *nohomophobes.com*, which counts how many tweets in a day use casual slurs, was projected on the wall during the presentation.

I used to think of Twitter as a useful tool for broadening my readership and for staying on top of the online conversation. Now I think of it as that thing on the device I ought not to bring to bed with me lest I sit up all night feeling overwhelmed. For me and many others, social media has become a source of anxiety, and we constantly renegotiate our relationship with it as with an uneasy beast.

I'm entirely aware I've cultivated a special sensitivity by being a high-volume social media user. The spaces where I focus are disproportionately contentious, too. But tweeting about videogames — articles, opinions, even casual mini-diaries of play — often brings fraught results, from overly intimate quips from strangers who feel they're talking to a friend to hostile undermining.

Recently I've noticed, though, that tweeting we're going to play a board or card game produces a noticeably different result. "Have fun!" "I like that one, too!" "Good luck!" "Tell us how it goes!" Even accounting for my own

biases, I can't help but notice the marked cultural difference between physical and digital games as measured by social media response.

I started getting into all kinds of games with in-person or physical elements — board games, card games, *Tiny Games*, *Sportsfriends*, *Werewolf*, *SoundSelf*, *Mega GIRP*, gallery shows and more (look all this stuff up, OK?) — when I noticed that game makers who view design as discipline and practice, not just business, are often drawn to the physical medium.

Many passionate game creators use pen-and-paper or board gaming as a means of prototyping, or simply for visiting the creation space from a different angle. It's exciting and encouraging to think of game design as something that isn't bound to one platform or set of inputs, but as an enormous space for innovation and experimentation that helps us think more intelligently about the question: what might a screen or a button add to this fabulous interaction?

But it looks like what can we learn about community from physical games could be an equally relevant question for the age ahead.

In-person play is genuinely social in ways our culture of online leaderboards, outspoken Let's Play-ers and kill/death ratios hasn't yet explored.

When players sit down to a card game about bluffing and tricking one another, they've all agreed to the social contract of that interaction, and the game is designed to make that infrastructure fun. Games about

cooperation are specifically designed to positively reinforce teamwork — not because they offer literal rewards or bonuses for playing together, but because that's the way the game is supposed to work.

Maybe card and board gamers seem friendlier online because I'm more of a casual fan, and simply haven't delved into the inevitable deep zone where fans get intense and participation gets demanding. But I suspect it's also because games that summon groups of friends together are genuinely social in a way videogames will need to learn if they're going to address the ongoing business and creative obstacles that their culture and community present.

Leigh Alexander is a widely published writer on the business, design and culture of videogames and social media

NATURE + TECHNOLOGY + SPACE + HUMANS + ENGINEERING



ARE ANY
ASTEROIDS GOING
TO COLLIDE
WITH EARTH?



WHICH
ORGANS COULD
YOU LIVE
WITHOUT?



COULD WE
HARNESS
LIGHTNING FOR
ENERGY?



FIND THE ANSWERS & MORE IN...

SCIENCE UNCOVERED

+++ NEW +++
+++ MAGAZINE! +++

DISCOVER THE WORLD AROUND YOU
YOUR ALL-NEW COMPREHENSIVE GUIDE TO THE SCIENCE TRANSFORMING OUR
LIVES AND UNIVERSE – BROUGHT TO YOU BY RENOWNED EXPERTS!

LIMITED OFFER
**GET 3 ISSUES
FOR JUST £3!**
www.science-uncovered.com



marshdaves.com



BRIAN HOWE

You're Playing It Wrong

Xbox One is the media console of choice? The stats for porn rental service SugarDVD show otherwise

The startling new data on the porn rental habits of gamers immediately raises one burning question: who still rents porn now that they're just giving it away? Online shopping addicts? Credit card thieves? Confused elderly people on the verge of a life-threatening shock? You might as well rent snow in Siberia. Well, now we can add one definitive answer to that speculative list: PS4 owners. Last December, they reportedly signed up for the porn rental service SugarDVD's console app a whopping three times as often as their Xbox One-owning brethren. (And sistren! But let's be real, it's mostly brethren.)

SugarDVD also named the top five rental titles for each console, which were similar in

their unsettling proclivities for cream pies and Russians. In a rare instance of cross-console solidarity, Cream Plosions #2, a touching tale of two drugged-looking young women getting coldly and mechanically screwed, topped both lists. Now that PlayStation and Xbox partisans are united in their passion for creaming virgin Russian ass, can peace on the Gaza Strip be far behind? In any case, one lesson is clear: when you go play PS4 at your buddy's house, you should bring a blacklight, or ideally your own controller, though there is a strong statistical probability that yours is also encrusted with reproductive fluids. But better the semen you know than the semen you don't, if I remember the expression correctly.

Even though there were still more PornStation 4s than Xbox Ones sold at the time, the lopsided distribution of people who wish to make creative and unauthorised use of rumble controllers is counterintuitive. The Xbox One, a console specifically designed to plunge its omniscient tentacles into every orifice of your integrated home media system, should make it easier than ever to turn your console into a filthy, filthy smut box. And while I haven't yet tried the video services on the new consoles, as someone who uses the PS3 Netflix app only when he wants to experience blinding rage, it seems to me that Sony's hiccupy streaming can't even keep up with Wii's, despite technological superiority so overwhelming that any Wii left next to a PS3 will eventually begin to worship it.

The plot thickens when you consider the findings of a survey that polled the romantic partners of over 1,700 gamers to find out how sexually satisfied they were, a study now known to many gamers as 'My worst nightmare made incarnate'. The sexual prowess of only 11 per cent of gamers was rated 'excellent', while 27 per cent were deemed 'good'. The figures for 'average' and 'below average' are too heartbreaking to reprint here, while those for 'actively traumatic' were mercifully omitted. But intriguingly, Xbox users were rated 'excellent' or 'good' twice as often as the general population, implying that the PlayStation players were dragging down the average with abysmal approval ratings seldom seen outside of the US Congress.

Maybe the thought of having to say "Xbox, stream gangbangs" is too humiliating

There are several inferences we can make from this data. One is that Xbox users shag like ancient Greek gods, while PS4 owners, having stroked every last drop out of *God Of War* sex minigames and debugged Ellen Page screenshots – and being evidently unfit for human copulation – retreated en masse into the sad but non-judgmental embrace of porn. Perhaps some of them even chose PS4 over Xbox One specifically for porn-related purposes, labouring under serious delusions about the function of DualShock 4's touchpad.

But we should give PS4 owners some benefit of the doubt. Surely they can't all be shifty-eyed self-abuse addicts who are identifiable, in the rare moments when they venture into public, by their permanently claw-like fapping hands. Perhaps some of them clicked on *Monsters Of Jizz* under the misapprehension that it was the title of a bizarre new Suda 51 game. Perhaps some were home chefs simply hoping to learn how to cook a good old Russian cream pie, just like mum used to make. Perhaps they couldn't resist getting their rocks off in glorious native

1080p, where you can see every razor bump and suspicious rash, rather than plain old 720p, which from what I've been reading is so low-res it can actually damage your eyesight.

On the flipside, maybe Xbox One owners would love to get in on the porn action, but abstain because they're mortgaged up to their eyeballs to afford the console. Maybe they just fear the all-seeing tattletale eye of Kinect. Maybe the thought of having to say "Xbox, stream gangbangs" is too humiliating. Maybe they fear accidentally pulling up Creampie Hunnies From Russia on splitscreen while playing *Zoo Tycoon* with the family. Or maybe, just maybe, Xbox One players are secretly the biggest pervs of all. Consider this detail: while PS4 owners rented *Top Heavy Tarts* #6 into the top five, Xbox One owners preferred *Top Heavy Tarts* #24, which seems to imply that they had already watched the first 23.

Of course, this is all gross speculation. But tellingly, no data is available on the porn rental habits of Wii U owners, because as we all know, they only get aroused by *Harvest Moon*.

Brian Howe writes about books, games and more for a variety of publications, including *Pitchfork* and *Kill Screen*

FROM THE MAKERS OF

PC GAMER

JOIN THE INDIE REVOLUTION



**2014's
MOST
EXCITING
GAMES**



**EXPERT
REVIEWS
OF INDIE
CLASSICS**

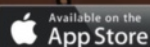


**MAKE
AN INDIE
GAME
AND GET
RICH!**

ON SALE NOW!

IN PRINT ■ ON iPad ■ ON iPhone

Find it in the **PC Gamer App**



or download via **Zinio.com**



 and "PlayStation" are registered trademarks of Sony Computer Entertainment Inc. Also, "P.S.2" is a trademark of the same company. InFamous™ Second Son ©2013 Sony Computer Entertainment America LLC. Published by Sony Computer Entertainment. Developed by Sucker Punch Productions, LLC. "InFamous" and "InFamous Second Son" are trademarks of Sony Computer Entertainment Europe. The Space Heeds is a registered trademark of Space Heeds LLC and is used under license. All rights reserved. "Photos shown are correct time of printing and may change."



COLLECTOR'S EDITION

LIMITED AVAILABILITY

SECURE YOURS WITH A £10 DEPOSIT

16
www.pegi.info
PROVISIONAL



COLLECTOR'S EDITION CONTENTS

- ◆ inFAMOUS™: Second Son Full Game
- ◆ inFAMOUS™: Second Son Collectable Coin
- ◆ inFAMOUS™: Second Son Bottle Opener
- ◆ inFAMOUS™: Second Son Badges
- ◆ Delsin Jacket Material Game Case
- ◆ Delsin Rowe Replica Beanie Hat
- ◆ Bonus DLC: ◆ Cole's Legacy
- ◆ Legendary Vest

GAME
EXCLUSIVE
ONLY £79.99*

PS4™

#4ThePlayers

#264

H Y
P E

THE GAMES IN OUR SIGHTS THIS MONTH

42 Evolve
PC, PS4, Xbox One

46 DayZ
PC

50 Wasteland 2
PC

54 Project Spark
360, PC, Xbox One

56 Planetary Annihilation
PC

58 Kirby: Triple Deluxe
3DS

**60 Middle-earth:
Shadow Of Mordor**
360, PC, PS3, PS4, Xbox One

60 Yoshi's New Island
3DS

60 Outrise
PC

60 Get Even
PC, PS4, Xbox One

60 The Elder Scrolls Online
PC, PS4, Xbox One



Explore the iPad
edition of Edge for
extra Hype content



www.edge-online.com
Up-to-the-minute
previews and reviews

No let off for Steam

Steam may be the dominant force in PC gaming, but it has plenty of problems, and many of Valve's supposed solutions make them worse. This relatively small company, whose market-leading PC gaming storefront and matchmaking service is run by a team of just a dozen people, devised Greenlight as a means of helping games get on Steam without waiting for staff to pore over thousands of submissions. It may have helped developers no end, but for users Greenlight has worsened the Steam discovery problem. Games are being greenlit 50 or 100 at a time.

Early Access, Valve's way of muscling in on the paid alpha craze, has made this worse. Steam's front page is littered with unfinished games, with no guarantee that they'll reach version 1.0. To developers, this presents a new challenge: what do you give, and how much is enough? This month, *DayZ* (p46) emerges blinking into the sunlight, the buggy free mod now a buggy free standalone game that's as intriguing as it was 18 months ago, except now it has a pricetag. There are even a few bits missing: there's no sign of the mod's vehicles, and even the titular zombies are a rare sight.

Much is promised, but Bohemia says this alpha won't reach beta status until next year at the earliest, and given the leaden pace at which the mod became the standalone, a final release seems a long way off.

Yet more than a million players have chosen to pay up now, convinced to purchase by the game's obvious promise and its developer's promises. It is vital those are kept. If you want early access to Uber Entertainment's *Planetary Annihilation* (p56) you'll have to pay £39.99, a price few big-budget games dare to charge on Steam. Valve's confirmation that it is to phase out Greenlight is a tacit admission that it erred by opening the floodgates, making a bad problem worse in a different way. Whether Early Access succeeds will have nothing to do with Valve, and everything to do with developers.

MOST WANTED

Dark Souls II PC

So close. We're weeks away from setting foot in Drangleic for the first time, and after two years of wiki-assisted treks through a world we've come to know like our daily commute, we can't wait to be blind again, inching around corners with our shield raised.

FTL iPad

With *SpaceChem* already having successfully made the leap to iPad, the prospect of *FTL* doing the same is tantalising. It will be also be loaded with all the new additions of the *Advanced Edition* expansion, including new ships, enemies and all manner of tech.

Hitman 6 PC, PS4, Xbox One

Absolution wasn't the definitive *Hitman* game, but IO's back catalogue means it deserves the benefit of the doubt, and it's certainly making the right noises about Agent 47's sixth outing. Contracts mode will return in a game that is apparently being aimed squarely at core fans.

H | Y
P | E

EVOLVE

It's survival of the fittest in Turtle Rock's four-on-one successor to *Left 4 Dead*

Publisher	2K Games
Developer	Turtle Rock
Format	PC, PS4, Xbox One
Origin	US
Release	Autumn

Arguably the best moments in *Left 4 Dead*, Turtle Rock's progressive and cooperative take on a Romero-like zombie apocalypse, occurred when the unseen hand of the tempo-regulating AI Director ushered in the Tank, a fearsome opponent. A colossal spanner in the works for even an organised team of four, the ten-foot-tall, masonry-chucking hulk would scatter players, booting them off rooftops and angrily hunting down survivors until someone breached his critical bullet threshold and his muscle-riddled mass slumped to the floor.

It's that same intestine-churning feeling of panic and surprise in the face of a powerful foe that Turtle Rock is seeking to reclaim and improve upon in *Evolve*. The game's hitting similar beats already: four players drop into a large but enclosed map that's populated with alien flora and fauna, plus one player-controlled creature. Viewing the action in firstperson, the human hunters' goal is to track, locate, trap and slay the monster. To do so, they'll need to work together using their brains and vocal chords. The thirdperson-controlled monster – in this demo, a Goliath, which Turtle Rock refers to as its King Kong character, but just one of many playable enemy boss creatures – is trying to survive long enough to kill and eat plenty of alien wildlife, slinking away to damp corners of the

map to evolve through its three developmental stages, becoming increasingly powerful and unlocking abilities in the process.

Clearly, several strands of *Left 4 Dead* DNA have been mutated for *Evolve*, but the game is at its strongest where it differs from its Valve-assisted progenitor. The four hunters, rather than falling into the more gun-centric roles of *Left 4 Dead*, instead fill four classes: Assault, Medic, Support and Trapper. They're all useful, but some more so than others at different stages of a game.

The pacing of the matches, which last ten to 15 minutes, is dictated by the monster's ability to hide during its early evolutions, and it's the Trapper who's most proficient at finding and restraining the beast. He does this by placing sound-triggered alarms about the map. Once Goliath is discovered, the Trapper can trigger a 50-metre-wide dome from which the monster cannot escape, forcing it into combat. It's possible to wear Goliath down, eroding its health bar before it can retreat back into the foliage.

The Assault, meanwhile, is a close-range specialist, dealing damage to the monster by getting under its feet with a lightning gun. To keep the Assault player from being stomped, the Support character can momentarily shield allies from a



Denby Grace, executive producer at 2K Games

The AI-controlled wildlife can take the form of small birds right the way up to man-eating plants and supersized crocodiles





At its final evolutionary stage, Goliath stands 30 feet tall and can breathe fire, hurl shed-sized boulders, leap huge distances and charge hunters



EVOLVE



Goliath is indigenous to the alien planet on which the game is set, and just part of the megafauna the human side will have to face

distance. And the Medic, of course, heals allies, but can also tranquillise the enemy from afar, which not only slows the creature down but also highlights it for other players.

These abilities work best in concert: a Trapper can harpoon the monster to slow it down and prevent it from using its leaping ability to escape, the Support character can call in air strikes to pummel it, and the Medic can blast holes in its armour to create weak points on which other players can concentrate their fire. Hunters are powerful fighters when organised, and the outcomes of encounters in our playtest often depended most heavily on the preparedness of either side.

"Left 4 Dead only scratched the surface of that stuff," says executive producer **Denby Grace**. "Everyone could fire, everyone was dealing damage, everyone's role within that group was pretty general. The only characterisation came through the VO; the

itself. You can rile these big lizards up before luring hunters into their midst, where they stand a chance of being incapacitated with a single hit, or gobbled whole. Certain marked animals in the environment will grant perks to whoever can murder them first: hunters might be gifted double damage, while Goliath may be granted a shield boost.

Consuming wildlife and evolving causes Goliath to grow ever larger, something that's not completely apparent until you return, supercharged, to the hunters to find them now miniscule. Scrapping with the humans is a matter of avoiding their mines and snares, being mindful of who's shielded and focusing on the most vulnerable. Beyond that, you're broadly wreaking havoc and pounding them into the dirt. Goliath's four offensive abilities are an AOE fire-breath attack, rock throwing, charging and leaping – the latter three lifted almost verbatim from *Left 4 Dead*'s own special infected repertoire.

When fully evolved, you feel unstoppable, a terror wrought upon four players trying to keep you under control. The monster's is a role built for griefers and lone wolves, says Turtle Rock, giving *Evolve* another avenue of appeal for the co-op-averse player. Going toe to toe with a player-controlled Goliath is a boss fight unlike many others.

Goliath is but one of many zoological antagonists in *Evolve*. What's been shown so far – four characters, one monster and one jungle map – is the barest glimpse of the game's surface. "The other monsters are very, wildly different," says Grace. "Goliath is very physical. He goes from about nine to 30 feet tall by the end of his evolution. Now, other monsters might not do that. They might change in different ways. They're not so physical, not so strong, but their attacks are way more powerful. It varies pretty wildly."

Goliath may be genetically familiar to *Left 4 Dead* players, but the scope for some truly novel and asynchronous combat with *Evolve*'s as-yet-unrevealed foes is enticing. Managing four-versus-one with this sort of variety will be a balancing act, no doubt, but Turtle Rock's pedigree and ability to bring people together to co-operatively shoot things mean this bold project is in capable hands indeed. ■



Natural selection

Turtle Rock isn't discussing in any detail the kind of progression and levelling system *Evolve* will adopt, but promises that it'll be extensive. Classes are rewarded for their endeavours separately, seeing different score screens tailored to their abilities – Medics are rated by their ability to heal, for instance – and it's this score that can be traded in for new characters within each class, new monsters, and new perks to apply. "We're steering away from the likes of levelling up your rifle," says Grace. "Your rifle is your rifle, right? We let you choose an individual perk that applies to you as a character, but it was important to us that your skill, and you getting better, is what matters."

Certain marked animals will grant perks to whoever can murder them first

great sort of characters they had in the game.

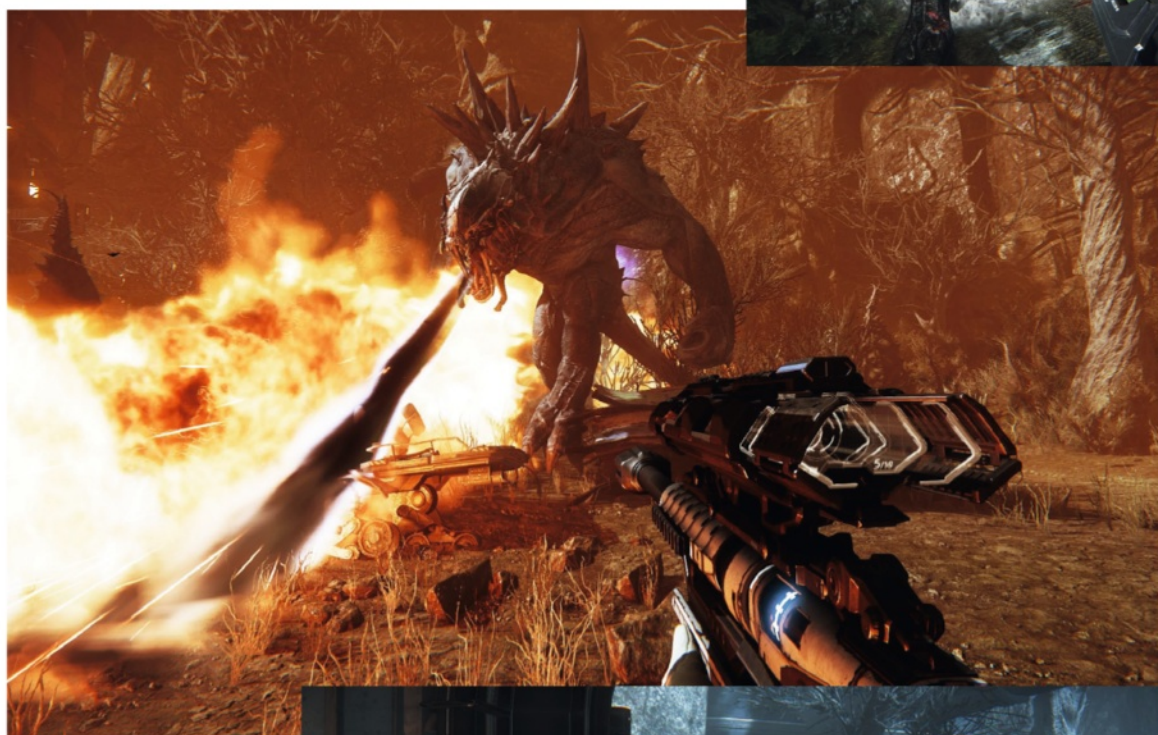
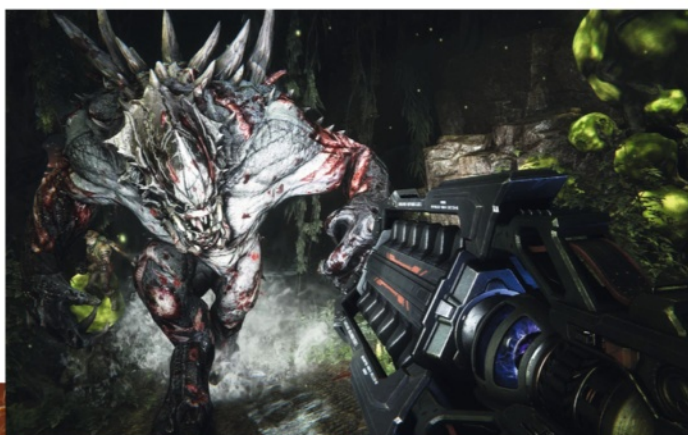
"So what Turtle Rock wants to do is push that forward. The hunters in *Evolve* are specifically characterised, in their looks and their VO, but now they each have unique items and weaponry. When you're selecting a character, you're selecting that character based not just on who they are but also their abilities and what they can do, and we hope that people find that sort of match."

Playing as Goliath is immediately reminiscent of taking control of *Left 4 Dead*'s Tank, but the clawed, musclebound beast is far more agile, more ape-like. Goliath can run up walls and bound from cliff face to treetop, or enter a stealth pose in which it moves slowly but doesn't startle wildlife or leave tracks. It can sniff the air to highlight nearby wildlife or hunters, though this creates a sound, betraying its presence.

The wildlife on which you're munching is varied, from docile feathered creatures to huge crocodile-dinosaur-hybrid swamp dwellers that pose a danger even to Goliath



Goliath grows larger with each evolution, but that's not necessarily so with other monsters. Antagonists are not always about brawn



TOP RIGHT Just as in *Left 4 Dead*, hunters attempting to go it alone will find themselves in rough situations. Class abilities complement one another, so sticking together is crucial.

ABOVE There are multiple characters within each class, each with their own distinct look and personality.

CENTRE Goliath's fire breath isn't its strongest attack, but it can damage multiple hunters, forcing them to scatter and even blinding them momentarily. It's useful against effective Support and Medic players

TOP LEFT Early in the game, the monster is as afraid of the hunters as they are of it. Keeping hidden and using the fauna is critical to the monster's survival.

RIGHT As games progress, the monster becomes strong enough to take on an organised team singlehandedly. Hunters need to ensnare and weaken it as much as possible before this point



H | Y
P | E

DAY Z

How Dean Hall's acclaimed survival mod is mutating into a standalone game

Publisher	Bohemia Interactive
Developer	In-house
Format	PC
Origin	Czech Republic
Release	Out now (paid alpha)



Know this: in *DayZ*, death is certain and final. You could have an M4 rifle with 200 rounds, a canteen full of water, and more baked beans than you could eat, but all it takes is a sniper, an unlucky fall, turning your back on a treacherous ally or losing your tin opener to send you back to the coast. This is where new players spawn, with just a T-shirt and flashlight to establish themselves in this most brutal of survival simulators. But you probably know that already. What's new is the paid alpha for *DayZ*'s reincarnation as a standalone game, having begun life as a mod for *Arma II*. And while there's still a lot of work to be done, it's already one of the most engaging multiplayer experiences on PC.

Chernarus is 225 square kilometres of post-Soviet cities, military bases, fields, forests, farms and monolithic grey tenement blocks. It's a bleak, beautiful world that's rich with detail and atmosphere, with shades of Andrei Tarkovsky's *Stalker* and *Half-Life 2*'s City 17. In this evocative postapocalypse, items essential to your survival – canned food, antibiotics, bandages, weapons and backpacks – spawn randomly in buildings. In the mod, only a handful of houses could be entered, whereas almost every structure has a modelled interior in the standalone game.

Your character's needs are expressed through onscreen messages, rather than stats

or meters: "I'm hungry", "I need to drink something" and so on. As well as starvation and dehydration, you can break bones, get sick, get too cold, or bleed to death. There are many ways to die, and managing your health is a full-time job. If it rains, your clothes get wet and your temperature drops. If you eat too much, you'll vomit. The mechanics of survival are remarkably deep, down to using the stars or the sun to navigate without a compass. It's no surprise that creator Dean 'Rocket' Hall is a big fan of the outdoors, his recent endeavours including a climb to the summit of Mount Everest.

The key to enjoying *DayZ* is accepting that you're going to die, and as such players who covet their gear will find it frustrating. You might go out in a blaze of glory, sacrificing yourself to draw fire from fellow survivors, or you might try to climb a ladder and be flung across the map by one of the alpha's many cruel bugs. The game doesn't care about you, how many hours you've played, or what your character has endured. This ever-present spectre of permadeath gives every decision real weight, and makes travelling through populated areas truly nerve-racking.

We've died because we accepted a transfusion from someone of the wrong blood type. We've died because a friend thought it



Chernarus's terrain is vast and varied, and thanks to its roots as a hardcore military sim, camouflage works. You quickly learn to stick to the trees as you travel, away from main roads, cities and open fields



DAYZ

would be funny to force-feed us rotten fruit, causing us to contract food poisoning. Once we threw ourselves off a building because we were starving and there was no food in sight. But mostly we've died at the hands of other players. The very first time we set foot on the coastline and started to head inland, three bandits in clown masks handcuffed, robbed and murdered us. More than thirst, starvation, zombies and every other danger in Chernarus, it's people you really have to worry about.

It's the social dynamic that makes the game so interesting, and such a powerful story generator. Like *EVE Online*, everything that happens in Chernarus is dictated by players, not scripted events or set-pieces. It's rare to play it and not leave with at least one anecdote. Sadistic players will loot military bases, then return to the coast to toy with fresh spawns, forcing them to fight to the death at gunpoint. Rival groups will battle over territory in areas with rare loot drops. Some players will announce that they're friendly over voice chat so that you'll team up with them, only to get an axe in your back.

True to the postapocalyptic genre, *DayZ* highlights the very worst of human behaviour. You feel yourself becoming more monstrous, and less trusting, the more you play. Moments when you stumble into other players are always tense. If both groups are armed, guns will be raised in a standoff. But it's possible to hide a pistol in your pocket, so even if a player looks unarmed, they might shoot you when your guard is down. You do witness occasional glimmers of humanity – altruistic players will sometimes offer spare food or give directions – but the savage nature of Chernarus means most players will attack on sight. Through this kind of interaction, *DayZ* has become a fascinating social experiment.

But what about the zombies? In the mod, they were a real threat, spawning around loot and able to kill you in a few hits. In the current alpha build, they're a rare sight. They can still make short work of your health, but sparse numbers make them easy to dispatch. More will be added in updates, and eventually you'll see large hordes roaming between towns, but they're a mild annoyance rather than a hazard for now. Still, it's testament to

the depth of the PvP interaction and survival mechanics that the game is still enjoyable – and dangerous – without the undead.

Vehicles, too, are absent from the alpha. In the mod, players could band together to repair and pilot helicopters, and you'd often find motorcycles, tractors and bicycles dotted around the landscape to make traversing the huge map less time consuming. But their absence doesn't damage the game. It's clear that this is still very much a work in progress, and it won't enter the beta phase until at least 2015. Planned content includes animals that can be hunted for food, resources to build structures and more complex crafting.

Hall has been frank about the state of the alpha, advising players to think carefully

You feel yourself becoming more monstrous, and less trusting, the more you play

before buying it – although that hasn't dissuaded more than a million people from doing so. There are a lot of bugs in the current version, some of which – like the evil ladders – can result in your death. Server troubles can cause characters to be deleted and there are cases of players getting stuck in the scenery, forcing them to wait patiently for their character to starve to death. But if you can stomach these bugs, and the lack of zombies, the standalone is already a better experience than the mod. The servers are more stable and the new drag-and-drop inventory is a vast improvement over *Arma*'s clunky system.

Even when it's finished, *DayZ* won't be for everyone. The learning curve is steep, much of your time is spent running through fields and forests looking for the next town to loot, and you can lose hours of hard work in the blink of an eye. But that's also what makes it so special. It's challenging, it's open-ended, it's memorable, it doesn't hold your hand, and it fosters a powerful sense of danger and consequence, a quality so many games lack. The concept is strong enough that even murderous ladders and vanishing characters can't stop it from being enjoyable, and it can only get better as more updates roll out. ■

Q&A

Dean Hall

Creator of *DayZ*,
Bohemia Interactive



The alpha has sold more than a million units already, despite your warnings that it's unfinished. Are you surprised?

It was a real surprise. It was hard to estimate what we would sell. The mod had been successful, but it had been a while, and we'd been delayed getting the standalone out. We usually avoid making predictions, but I thought that if it did a quarter of a million sales in a quarter, then I'd have considered it a success.

How has your role changed since your work on the original *Arma II* mod?

It's been fluid. We've been hiring people constantly... I wear a few hats. Sometimes I play a technology-focused role, sometimes I develop stuff directly in the engine myself, through to lead designer, to executive producer, and even lead artist, because we didn't have one for a while. I even did some motion capture early in the project.

Will you ever consider *DayZ* finished, or will it constantly evolve over time?

There'll be a time when my full-on involvement in *DayZ* is finished. I like to push for certain things, and I think there's a point where they become bad for the project. I think I have some things that when they're in, I'll consider them finished. But I think the game will have a lifetime far beyond that.

What have been the benefits of releasing on Steam Early Access?

This alpha has proven the concept, both commercially and critically. That is very powerful. It sends a massive shock around game publishers that this model works. I often can't believe it when I look at the numbers. People have validated the quite radical design decisions we made with their wallets. The best thing for me is that people have embraced this idea of a game not babying or spoon-feeding them. That's the kind of design I hope to base my whole career on.

How do you strike a balance between hardcore simulation and enjoyment?

I think about what I want to feel when I'm running around, and what pressures I want to be under. I think about what I'd be feeling in real life. Sometimes we get it wrong, and this alpha is kind of a shakedown of which mechanics work and which don't. I find it bizarre when people tell me they're enjoying it so much, because I see a lot of the limitations.



TOP LEFT Pressing F2 will make your avatar raise their hands. It's a shortcut worth knowing, since bandits will often ask you to do so over voice chat in a robbery. You can also flip the bird, but we really wouldn't advise it.

TOP RIGHT Weapons can be extensively modded. The M4A1 assault rifle can be fitted with a variety of scopes, rails, hand guards, stocks, lights, bipods and bayonets. All of which, of course, must be scavenged from the environment.

LEFT The clothing you wear now affects your inventory space, making apparel with extra pockets valuable. But a backpack is even better, letting you push farther into the wilderness and away from the dangerous towns



FAR LEFT Handcuffs are used by bandits to immobilise lone players and take their gear. To prevent their escape, players who log out while cuffed will be instantly killed, losing their supplies.

LEFT A lot of the melee weapons, including baseball bats, wrenches and fire extinguishers, are weak, but an axe will cut a zombie down with one solid hit

WASTELAND 2

Brian Fargo on the path to creating
a player-shaped apocalypse

Publishers	Deep Silver, InXile Entertainment
Developer	InXile Entertainment
Format	PC
Origin	US
Release	Out now (paid beta)

Go to any public park, walk around and you'll probably notice lines where the grass has been mashed underfoot by people who have ignored the paved pathways and cut corners. Such naturally formed paths are called desire lines. These days, rather than guessing how to pave a park, many smart planners open their public spaces and then return later to formalise the routes that desire lines tell them people want to tread.

Players have been leaving desire lines in *Wasteland 2* since December, when the Kickstarter-funded postapocalyptic RPG sequel was made available to backers and entered Steam Early Access. It was pitched to lovers of turn-based RPGs with the promise that it would recapture the hardcore spirit of 1988's *Wasteland*. The Kickstarter campaign received more than three times its asking amount, in part because it was helmed by Interplay founder **Brian Fargo**, who led the original game's development and assisted in the creation of *Fallout*.

It's not uncommon for multiplayer games to have lengthy public betas in which feedback is gathered to help improve a game's systems. *Wasteland 2* is one of the rarer instances where a singleplayer game is going through a similarly open process. The information gathered via metrics and social media is doing more than fixing bugs or rebalancing combat:

it's letting Fargo and his team at InXile know where players want to go. "There's a natural inclination to think that we're in beta, [so] all we can change are some of the statistics and maybe improve the UI," Fargo tells us. "But we're going to turn on this next version and there will be ways to play in the world that weren't possible before."

Wasteland 2 revives a classic template: you set off into a desolate dirt-and-dust world with a party of four survivors, each with their own stats and inventory to manage. The world isn't seamless, but split up into areas, which are connected via a travel map.

Fargo is keen to stress the advantages of publicly testing a narrative game. "Have you ever watched a movie where a situation happened, and the character doesn't bring it up in the next scene? You're frustrated." If players express frustrations in response to *Wasteland 2*, then the game will change.

The beta is set in Arizona. Early on during its six or so hours, two towns — Highpool and Ag Center — are placed on your map. Both need your help, but whichever you choose not to assist is destroyed, removing its quests. There's no way to save both.

As players began exploring and playing the beta, a question started to come up. If you opt to ignore the towns and decide to first



Brian Fargo, founder,
InXile Entertainment



Popular characters from *Wasteland* return, including desert ranger Snake Vargas. More old faces are expected, some chosen from among the excitable requests left on the message board



WASTELAND 2



The beta represents less than a third of the final game, although feedback suggests it can be anywhere from four to 15 hours long. It's also highly replayable, due to the way your choices split the narrative path

explore other parts of the wasteland, shouldn't both consequently fail? "That's the kind of stuff that we want to get, where there's this natural follow-on to some situations," Fargo says. "Then you get to the next part, which is, 'OK, the player still has to attach repeater units to a tower.'"

Towers would normally have been found in whichever town you saved, but the deviation logically throws up new routes. "We're not going to just put a tower," Fargo says. "We're going to make you earn it, so there's some additional questing and dialogue."

Wasteland 2's beta contains less than a third of the final game, which will encompass Arizona and a second area set in Los Angeles. Even so, it is a firm statement of intent — your actions have consequences, and those consequences are detailed.

When starting the game, the conversation that sets you off changes depending on the

"Whether it's gags, one-offs, items... it's just chock full of stuff you're not going to see"

characters you've selected for your starting party. Your party is able to respond to keywords in NPC dialogue and to particular pieces of information. As you investigate the world — opening boxes, fighting or talking to raiders, and investigating corpses — a printout in the bottom corner displays reams of descriptions, relating environmental details and jokes. At plot-critical moments, your radio croaks to life with voice-acted narration and your next mission. These are all old-fashioned methods of conveying information in videogames, but each is executed superbly.

Although the beta is short to complete, you'll quickly realise how much you're missing out on with every decision you make. InXile is building an almost absurd amount of content that only a few people will ever see.

"We're perfectly fine with you not seeing a huge part of the content, because if you don't have that as a variable, you're not getting choice and consequence," Fargo says. "We have to build it in and build it in and build it in. Whether it's gags, one-offs, items, quests,

NPCs, you name it, it's just chock full of stuff you're not going to see." That last line could be the marketing department's poster quote.

Right now, however, the game's combat doesn't offer the same sense of meaningful choice. When you meet a group of bandits or a mutant frog, you switch to a turn-based battle mode that offers little variety and few opportunities for employing clever tactics. You'll shoot plasma guns, fire rifles and strike people with pipes, riding chance-to-hit percentages towards steady victories, but your decisions are rote rather than considered.

In a beta, these qualms aren't a reason to write off the game. Fargo has already posted a Kickstarter update addressing the combat complaints, saying inXile is looking to expand the scope of destructible cover, to add more special attacks, and promising that the AI becomes more interesting as you advance.

When it comes to mechanics like these, it's common wisdom to think they have an objectively 'best' state. They can be tested and therefore made quantifiably better. That's not necessarily the case with story, so we trust authors and artists to lead us where they want. When prompted, Fargo asserts his team maintains authorial control — no matter how often people ask, he says, "we're not going to put vampires in the game" — but the way he describes his role is more contractor than auteur. "It's almost like a custom job," he says, "having me come in and them saying, 'Brian, I love the kind of houses you build. I want you to come make me a round house, and I want tall walls and I want a staircase.'"

Including the people who are going to live in the house you're building makes sense. It's also a counter to the expectations that arise when industry figures return to the genres they helped create. "If I put all that in, and it's sort of what we set upfront," Fargo says, "then it makes it harder for you to go, 'Whoah, whoah, whoah! I didn't want a round house!'"

The common analogy is that Kickstarter backers are patrons of the arts, but maybe they're not. Maybe they're simply hiring tradesmen to build a gazebo. Or maybe they're commissioning planners to landscape their local park. For Fargo to do his job, all he needs to know is what you desire. ■



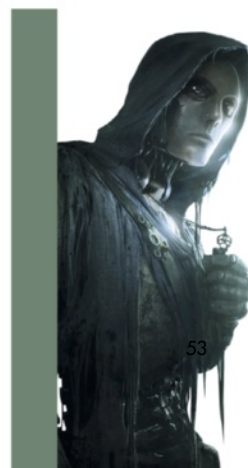
Beta ethics

Wasteland 2 has benefited from Kickstarter funding and Early Access money. But with unfinished games, does responsibility lie with developers to protect their most fervent fans, or with players to educate themselves before they buy? "I think there's responsibility on both sides," Fargo says. "There'd better be a good base-level experience for what [developers are] putting up, and there'd better be a very high percentage chance that [they] have the ability to finish the game. As long as they're delivering what they're saying, then I don't see an issue with it. For us, we've put it up with plenty of caveats that it's unfinished, so get it only if you want to, because we want your feedback."



TOP *Wasteland 2* brings back an age-old formula, and early backers are being offered a copy of the 1988 original to experience its roots for themselves. ABOVE Your party can be selected from various presets at the start of the game, or of course you can pick their skills, looks and attributes from scratch

TOP The camera can be zoomed out to give you a broad view of *Wasteland's* world. All the better to appreciate those browns. ABOVE Unity 3D provides the game's engine and tools, enabling rapid development and flashy lighting, while leaving room for community mod support at a later date RIGHT The combat currently lacks the nuance of other recent reboots, such as Firaxis's *XCOM*. InXile has let Kickstarter backers know that it's working on improving its system



Publisher Microsoft
Developer
Team Dakota
Format 360, PC,
Xbox One
Origin US
Release 2014



The item gallery currently contains a choice of 18 heroes, though only ten of them are free. They're among the more expensive premium items, with one purchasable druid costing £3.49 if bought with tokens

PROJECT SPARK

Team Dakota's crossplatform toolset is problematic yet promising

Project Spark is a challenge to its developers. Designed to run on PC and consoles — and mobile and tablet via SmartGlass — its powerful creation tools have to be easy to both understand and use across a variety of input devices. It's a challenge to players, too, who will ultimately define the value of those tools with their creations. The recently launched Windows 8 beta gives us a first look at how both parties are faring, and a chance to see how Team Dakota's promising platform feels in the hands.

Early signs are positive, with a step-by-step tutorial doing a fine job of conveying the flexibility of *Project Spark's* creation tools. After choosing a hero from the beta's assortment of humans, goblins, fish and birds, we set about assigning our protagonist some behaviours. Dubbed 'Kode' statements — a nod to *Project Spark's* progenitor, the kid-

friendly programming platform Kodu — behaviours are split into two sides: When and Do. In just a few mouse clicks, we've told our hero to move in response to our WASD key presses, to jump when we press space, to melee attack when we left-click and to fling a fireball at a click of the right mouse button.

We've also set up a thirdperson camera that follows the player, though we could have gone with firstperson, fixed or boom cameras, or told the viewpoint to track an enemy. And we're never more than two clicks away from jumping into the world and testing it all out. We're still looking at an empty blue world, though — the blank digital canvas to which developer Team Dakota has so frequently referred. This is a world in need of life and we're only too happy to oblige. Using the Sculpt tool, we raise a hunk of land into a



ABOVE CENTRE **Spark Power** is easily the game's most controversial element and risks splitting the community in two. Twenty-four hours of access costs 100 tokens — about 70p in real money — though it can also be bought with credits earned in-game.

ABOVE Right now, player creations are, naturally, a little buggy, with one physics hiccup sending our hero spiralling high into the air and out of the gameworld. Ryse Son Of Spark proved relatively stable, though it's hamstrung by *Project Spark's* rudimentary combat system.

LEFT Crossroads is a smart way of bridging the gap between creation and play, though its simplicity rather undermines the powerful platform on which it is built. Choices are simple and arbitrary: do you want to fight goblins, for instance, or rabid squirrels? It barely matters, since both battle in much the same way





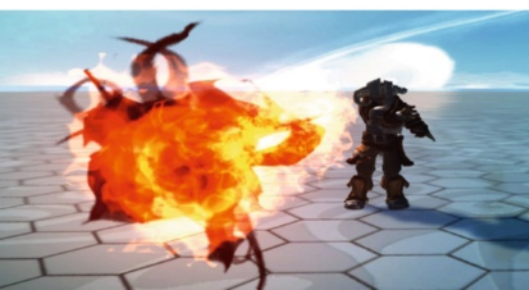
The Ranger class has a standard arrow shot that can be charged up for more damage, while a less powerful AOE attack knocks down entire mobs. There's a dodge move, too, mapped to the 360 controller's B button

clumsy mountain. We quickly finesse its awkward form by switching from Expand mode to Erode, carving out a peak and a path for our chosen hero to follow.

With the Paint tool, we daub the mountain's base a verdant green that gives way to scrubland on the way up, then a snow-capped summit. Finally, we place Props, with a trail of coins to denote the critical path. It's immediate and intuitive stuff, with smart UI design ensuring that what we need is never more than a couple of clicks away. The tutorial is controlled solely with mouse and keyboard at present, but it's already clear that *Project Spark's* interface has been built with pads and touchscreens equally in mind. Behaviours, for instance, are chosen from controller-friendly radial menus full of chunky icons that are big enough for the clumsiest of fingers. It's presented smartly, adding a veneer of simplicity to something that, a burrow through the behavioural radial menus confirms, runs remarkably deep.

There's little better way of seeing just how deep than by selecting the Play option on the beta's main menu, picking up a 360 controller and jumping into some far more intricate player creations. Now might even be the best time to do it: the full release will likely cause the IP lawyers to descend, killing off a raft of charming, if simplistic, homages. There's Missile Defense, an obvious nod to *Missile Command* with sparkling Peggle balls for ordnance. There's the *Super Monkey Ball*-like Barrel Smash, as well as the self-explanatory likes of *Minecraft Inspired* and *Dakotris*.

While the tutorial uses only mouse and keyboard controls, *Project Spark's* community creations support the full range of inputs. This crossplatform nature may be the reason for the game's fairly basic mechanics

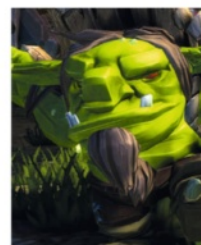


Ryse Son Of Spark, meanwhile, is a rudimentary hack-and-slash game whose adherence to the source material even extends to slow-motion executions.

In between creation and play lies Crossroads, a thirdperson adventure in which you choose an environment, biome, time of day, hero and homestead. Then you set out to save your village, choosing aggressors and the final boss, and picking up sidequests as you go. It's diverting enough, but a little too simple. Mobs simply rush you en masse and keep mindlessly attacking until you kill them, while a wayward camera struggles to keep up with things. The creation aspect can be as fluid and intuitive as *Dakota* likes, but unless it refines its game mechanics in the run-up to release, there'll be little reason for players or creators to stick around for long.

Unless *Dakota* refines its game mechanics, there'll be little reason to stick around

The biggest concern, however, is monetisation. *Project Spark* will be a free download, so it's impossible to begrudge *Dakota* for hiding select biomes and character models behind a paywall, but balance will be key. Throughout the beta, you're nudged gently to invest in Spark Power, which doubles the rate at which you accrue XP (used to level up, with some items available only at higher ranks) and credits (one of two in-game currencies; the other, tokens, is bought with real money). It's much more than a coin doubler, however: it's also the only way to play levels made with content you don't already own. It's a questionable move that risks either alienating those who don't want to pay up, or effectively forcing those who want their creations to reach a large number of people to stick with the default set of toys. Neither of these outcomes will help to create the player base that *Dakota* wants and needs for *Project Spark* to be the success that, given the simplicity, power and flexibility of its creative tools, it deserves. ■



Massively typical

Project Spark's chunky, cartoonish character models recall *World Of Warcraft*, while your first moments in the choose-your-own-adventure Crossroads mode could be straight out of any by-the-numbers MMOG from the past decade. Noticeboards provide brief combat tutorials, while shops sell weaponry and stat-boosting items. As you try to find the MacGuffin required to save your village, you can pick up sidequests that adhere to the MMOG template, typically asking you to kill a number of nearby aggressors for a cluster of coins. Combat whiffs of the genre at its worst, too. Perhaps it'll be more engaging with friends, but *Dakota* is yet to outline the multiplayer function.



Publisher
Uber Entertainment
Developer
In-house
Format PC
Origin US
Release
Out now (paid beta)



PLANETARY ANNIHILATION

Uber's war of the worlds is one of commanding scale



The original *Supreme Commander* took *Total Annihilation* and taught it a spectacular party trick. A flick of the mouse wheel whipped the camera skywards, turning a skirmish between dozens of bots, tanks and jets into a continent-spanning war between hundreds of them. From that perspective, another flick would send you crashing to ground level, where the wrecks of combatants were scavenged by fabrication units that scuttled to and from colossal bases.

Planetary Annihilation is the Kickstarted spiritual successor to *Supreme Commander* by *Super Monday Night Combat* developer Uber Entertainment. It marks itself out, as its predecessor did, with epic scope. This time, a tap of spacebar zooms the camera out to the cosmic level, where a single star is orbited by multiple planets. Each is the size of a *Supreme Commander* map, and each is able to be conquered by players as they race to seize the power to wipe each other out.

This branch of PC realtime strategy is defined by looseness on the micro scale — the placement of individual buildings and units is less important than it is in, say, *StarCraft II* — balanced against macro-scale precision and weight. Players rush to secure the resources to churn out units by the score. When armies meet, they grind against each other like tectonic plates, the power of vast economies wrestling for control made manifest.

***Planetary Annihilation* is**, in its beta state, more straightforward than *Supreme Commander 2*. There's a single faction, though more will follow, and a handful of units of each type. It's still possible to plan your strategy around long- and short-range combat as well as naval, air and land units, but less time is spent reading tooltips to determine how one artillery tank differs from another. This relative simplicity is reflected in the visual style. Uber's signature cartoonishness makes *Planetary Annihilation* more colourful than its ancestors, eschewing muddy detail

for robots built out of primary-coloured blocks. That said, animations are less detailed than they could be, and rapid-zoom level changes can cause distracting visual errors.

It's that cosmic zoom level that really sets the game apart, however. Losing the early game need not mean total defeat: providing you can get an orbital launcher built in time, it's possible to relocate your commander to another world to start over. This in turn leads to a paranoid rush to secure the new planet from enemy incursion, and ultimately the construction of an invasion force and the teleporter network you need to get them home. *Supreme Commander* always had a

Planetary Annihilation marks itself out, as its predecessor did, with epic scope

problem with feeling anodyne at the ground level, and *Planetary Annihilation*'s additional space for drama is welcome.

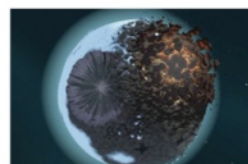
Order a unit to travel from one planet to another and it will plot its own gravitational slingshot around planets and stars to reach its destination. It's possible to build rockets that allow you to move stellar bodies out of alignment, the ultimate aim being to turn asteroids into planet-smashing missiles. Planets have a day/night cycle determined by their position in the solar system, and pass by each other according to randomly generated orbital paths. Never quite a simulation, *Planetary Annihilation*'s occasional nods at real physics nonetheless help to ground it.

As with *Supreme Commander*, the scale is more than a gimmick. Getting your head around spherical maps is daunting at first, then exciting as their potential becomes apparent. Uber has laid a solid foundation on which to build a cult strategy game, but it requires care, polish and a healthy number of new ideas to get the rest of the way. ■



Caveat emperor

Planetary Annihilation may be on sale, but it's still very much unfinished. Missing features aside, the AI isn't good enough to present an interesting threat. Persistence will usually win the day, but spending an afternoon cracking an unresponsive foe isn't a rewarding way to play. Playing against humans online is better, but we did experience performance issues in large-scale battles, and it's possible to enlarge your armies to a horde that's beyond your PC's rendering capacity. All that said, this paid beta is an opportunity to get involved with the game's community at the ground level — and, as with any competitive game, there are advantages to being among the first wave of players.



ABOVE The destruction of entire worlds will be an extreme late-game option. You might do devastating damage to your enemy, but you also effectively remove a tremendous amount of resources from play

ABOVE As with its spiritual predecessors, buildings and units don't have immediate upfront costs. Instead, you spend resources continually as you build them, depicted as a stream of green energy. RIGHT Early aggression more often than not acts as a scouting exercise, giving a player an early sense of what their foe is up to. Catch a foe unawares, however, and you can do serious damage to their economy



Publisher Nintendo
Developer
HAL Laboratory
Format 3DS
Origin Japan
Release Out now
(Japan), 2014 (EU, US)



KIRBY: TRIPLE DELUXE

Why Kirby's belated 3DS debut has Japan tickled pink



The pioneers of 3D cinema revelled in the form's novelty, keenly demonstrating its possibilities by bombarding audiences with objects that appeared to fly out of the screen. HAL Laboratory's mascot is a late arrival to 3DS, and it shows: the developer uses similar tricks with unrestrained glee, as if it has only just discovered autostereoscopy.

Every level of *Triple Deluxe* features some kind of 3D effect, often objects or enemies flying from background to foreground. Spiked bars push their way out of your 3DS and railroad tracks carry locomotives that rumble toward your eyes. Giant hands attempt to squash you against the screen, while well-timed special attacks allow you to do the same to enemies. Bosses leap between planes and daub thick splashes of paint across the screen to hide behind. Reach the end of the level and, in a 3D twist on the post-stage cloud jump, a cannon shoots Kirby into the handheld's depths. It may be a gimmick, but you can't help but be swept along by the expertise and creative exuberance with which these tricks are employed. It's one of the few games to truly demand that you move the 3D slider to its maximum setting; 2DS owners are undoubtedly getting a lesser experience.

3D effects also help HAL to craft more inventive levels than we've become used to in Kirby's past adventures, with stars carrying the rotund hero between different planes, while mirrored backgrounds reveal invisible enemies and highlight hazards and pitfalls hidden in the foreground. Later on you'll race a Waddle Dee carrying a key to the end of a platform and grab a star to intercept him before he springs off the edge.

HAL seems positively invigorated by the possibilities, and nowhere is this more evident than the first boss fight. Whispy Woods, usually the duller and most static of end-of-level guardians, has had a technicolour makeover and a direct injection of energy. Halve his health bar and he uproots himself,

firing objects from a position of safety at the back of the screen before extending whip-like tendrils across it to trip you up.

The invention continues with the Hypernova ability, an occasional power-up that allows Kirby to vacuum up larger objects. With it, he'll inhale rockets from a towering machine to spit back at its supports, and unearth turnips that arc gracefully into the flight path of feathered foes. It's used to bring snowmen to life as you drag their heads back to their torsos, while a blast of suction power is enough to shift large rocks, unlocking new routes. The puzzles rarely extend beyond transporting an item from one place to

You can't help but be swept along by the expertise and creative exuberance

another, but the aesthetic joy of the results compensates for the simplicity of the task.

And this is one of the platform's prettiest games. *Epic Yarn's* homespun aesthetic may be more striking, but Kirby's world has rarely buzzed with quite so much life and detail. The 3D helps, but the animation is splendid, while fresh copy abilities offer further flourishes. As a rhinoceros beetle, Kirby can turn enemies into a squishy kebab. Circus Kirby bounces forward and back like a careening clown, the attack button used to produce balloon sculptures, a ball to balance on and juggling skittles to attack airborne enemies.

It's less inventive than *Power Paintbrush*, but that's hardly anomalous among first- and second-party software on 3DS, since Nintendo's apparently content to continue offering excellent takes on tested formulae. But with *Mario*, *Zelda* and *Pokémon* having come and gone, Nintendo will be hoping its second-tier franchises can raise their game. If the rest can match this for vibrancy, 2014 promises to be another good year for 3DS. ■



Triple trouble

Two modes help fill out a generous package. One is a musical platformer starring King Dedede in which you guide Kirby's sometime nemesis across a series of drum skins, dodging hazards and gathering coins to the rhythms of familiar themes. It's fleetingly enjoyable, but in controlling both the direction and height of Dedede's leaps, it can feel clumsy, lacking the elegant simplicity of Game Freak's *HarmoKnight*. Happily, it's joined by an accomplished *Smash Bros* clone that's dubbed Kirby Fighters. This offers a series of increasingly challenging battles against Kirbys with other copy abilities as well as a local multiplayer battle mode that's as frantic and accessible as the real *Smash Bros*.



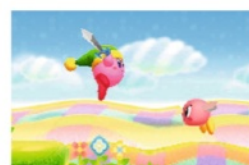
Kirby may not have the pull of Mario, but *Triple Deluxe* has enjoyed a healthy start in Japan, racking up first-week sales that dwarf the debuts of his past three titles



TOP Bell Kirby is another new ability. While standard attacks do little damage, repeated hits release louder chimes, and charging up unleashes a sound wave.

ABOVE Focusing on the timing of your leaps while using the D-pad to move in Drum Dash feels a little like patting your head while rubbing your stomach.

RIGHT Winter stages are among the visual highlights. Ramps see enemy skiers leap across Kirby's path, while snowflakes glide lazily by. A combination of winds and icy surfaces in one section briefly turns the game into an auto-runner



ABOVE Each stage houses three or four gems, of which you'll need a certain number to open the route to the boss level. Some are surprisingly well hidden, as are the collectable keychains, each of which showcases a piece of sprite art from Kirby's past. You'll earn an extra one for reaching the final cloud in the post-stage minigame





ROUND-UP

MIDDLE-EARTH: SHADOW OF MORDOR

Publisher Warner Bros **Developer** Monolith **Format** 360, PC, PS3, PS4, Xbox One **Origin** US **Release** 2014



As a compendium of previous-generation thinking, it's hard to find many omissions in *Shadow Of Mordor's* first gameplay presentation. There's *Wraith* vision to highlight enemies, a contextual combat system borrowed from *Batman*, environmental kills, brutal stealth takedowns and most of your other favourites from the PS3/360 generation. A complex relationship system sits beneath the game's open world, and Monolith promises a degree of procedural rivalry to make every playthrough different. The game's first look demonstrates only a world of stab, possess, repeat, with a hint that – somehow – someone will notice.

YOSHI'S NEW ISLAND

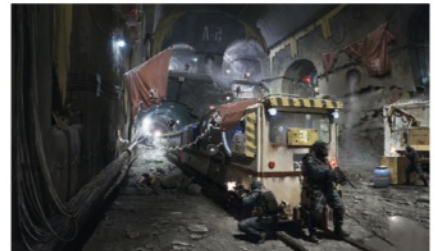
Publisher Nintendo **Developer** Arzest **Format** 3DS **Origin** Japan **Release** March 14



It seems sacrilegious to await a new *Yoshi's Island* game with anything but optimism, yet we have fears about the dino's 3DS debut. Its art style recalls N64 title *Yoshi's Story* more than the SNES classic, and developer Arzest was formed from the ashes of Artoon – the studio behind the disappointing *Yoshi's Island DS*. Pre-release trailers have suggested a leaden pace, but there's one reason to be cheerful: Takashi Tezuka, director of the SNES original, is producing.

OUTRISE

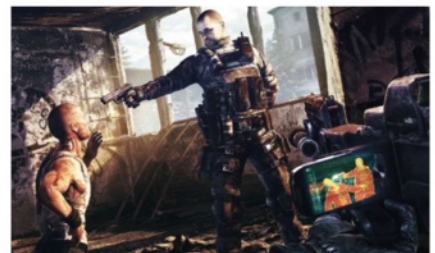
Publisher/developer Team Outrise
Format PC **Origin** US **Release** TBC



Outrise's appealing premise is an asymmetric action game with a retro sci-fi aesthetic, where up to 15 partners try to topple a foe controlled by another player. The studio describes it as like a cross between *Shadow Of The Colossus* and *Left 4 Dead*, or "a colony of fire ants attacking its prey".

GET EVEN

Publisher/developer The Farm 51
Format PC, PS4, Xbox One **Origin** Poland **Release** 2015



While fellow Polish studio The Astronauts is creating a game world from hundreds of photos, *Deadfall Adventures* developer The Farm 51 is laser scanning its real-world locations. A thoughtful take on multiplayer sees other players play the role of enemies in the singleplayer campaign.

THE ELDER SCROLLS ONLINE

Publisher Bethesda **Developer** Zenimax Online Studios
Format PC, PS4, Xbox One **Origin** US **Release** June



New gameplay details must wait until the imminent closed beta, but Zenimax has revealed *TESO's* voice cast. Malcolm McDowell, Kate Beckinsale, Michael Gambon, John Cleese and Alfred Molina head the list, giving credence to a report claiming the game has cost Zenimax more than \$200m.

100% more stylish 30% more forests

No wonder
you ♥
paper

Did you know that forests in Europe, which provide wood for making into paper and many other widely used materials, are 30% larger than in 1950? In fact they're increasing by 1.5 million football pitches every year.[†]

Magazines are printed on paper from natural and renewable wood which is all good to know if you love reading your favourite magazine.

[†] World Forest Resources, 1953 and UN FAO Global Forest Resources Assessment, 2010

To discover some surprising environmental facts about print and paper, visit www.youlovepaper.info



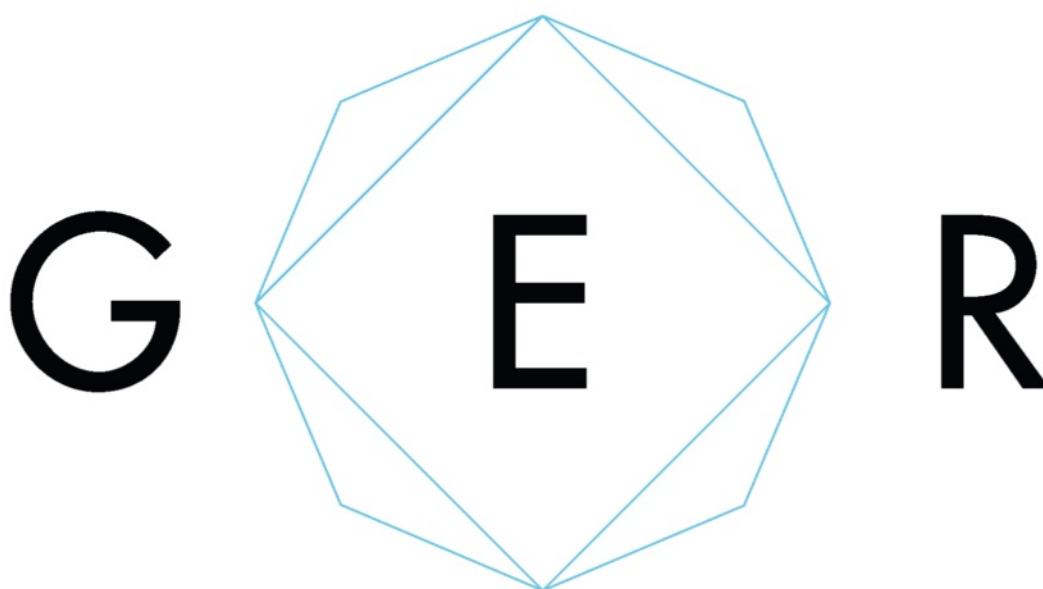
Two Sides is an industry initiative to promote the responsible use of print and paper as a uniquely powerful and natural communications medium.

Print and Paper.
The **environmental**
facts may
surprise you



D A N

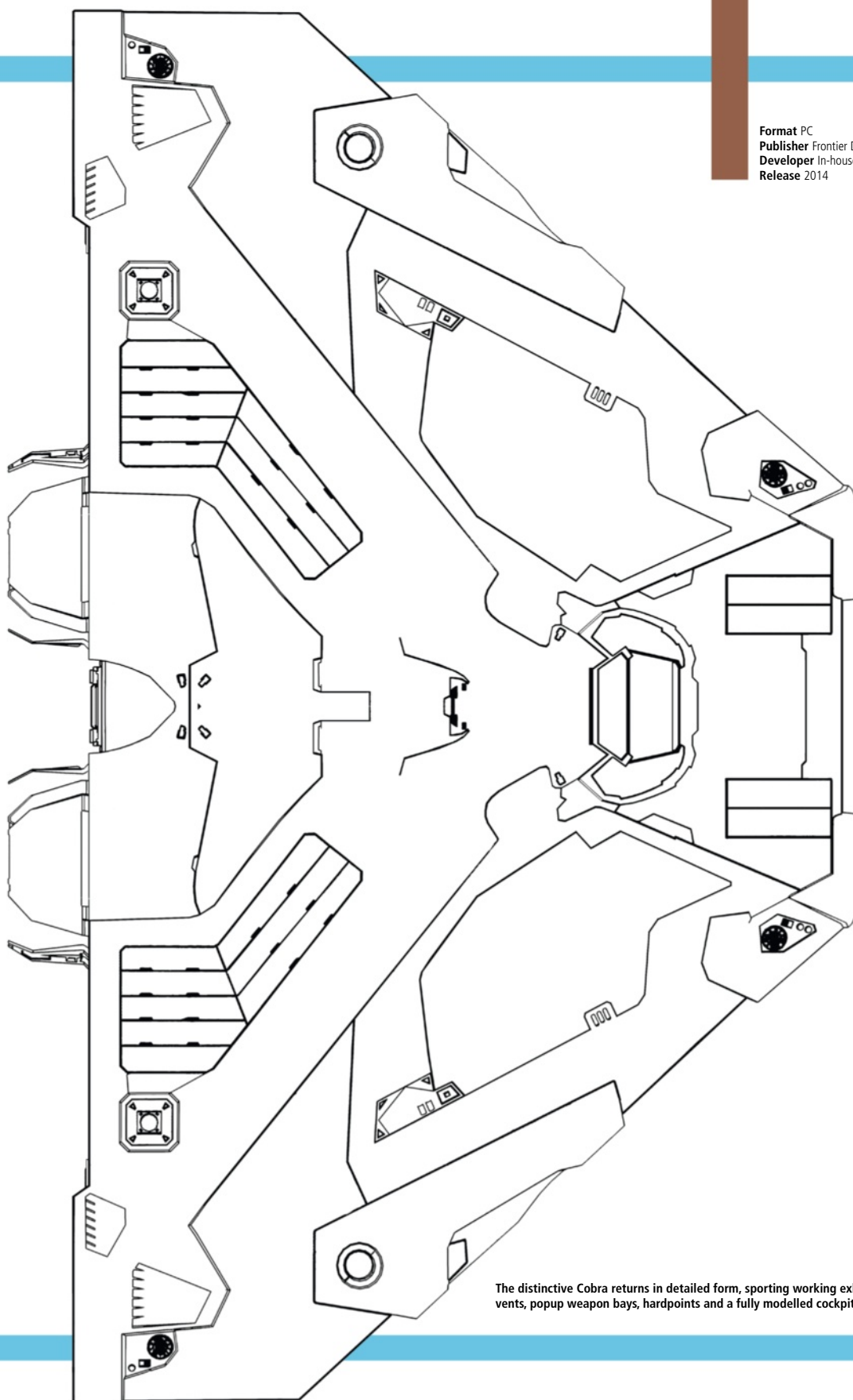
Thirty years after the original, Frontier is



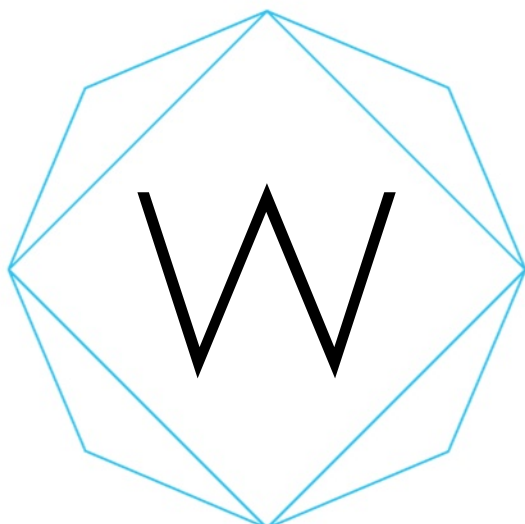
preparing to launch the most ambitious Elite yet

O U S

Format PC
Publisher Frontier Developments
Developer In-house
Release 2014



The distinctive Cobra returns in detailed form, sporting working exhaust vents, popup weapon bays, hardpoints and a fully modelled cockpit 2



e're in trouble. A minute ago, our instruments were spewing out smoke, but that's stopped now. This is because a hairline fracture in our canopy has just proved fatal to its integrity, sucking the shards of reinforced glass out into space along with our targeting reticle and air. Two of our enemies have been reduced to still-cooling shrapnel at least, but concentrating too long on the second meant we allowed the other three to adopt a delta formation and get a bead on us. They're just out of range at the moment, but turning. Apart from the muffled music and our pilot's strained breathing echoing in his helmet, the depressurised cabin is eerily quiet. Without our HUD, we can't use our heat-seeking missiles, and we only have two minutes left to finish the mission before we asphyxiate. Beam laser it is, then. We centre the enemy wing where the sights used to be, accelerate and open fire. We're not going down without a fight.

Even at this early stage, *Elite: Dangerous* is already living up to its subtitle. Your ship creaks and groans under stress, its engine and weapons sounding at once identifiably mechanical yet unfamiliar. And every encounter in this alpha build is a fraught one. Frontier has spent a long time polishing the feel of its combat, so already dogfights are far from the chore of attrition into which so many other videogame space duels descend. Instead, balletic manoeuvres are allied to brute-force weaponry and a metagame of ship power management. It feels just like you've always imagined a real space battle would, but combat is hardly *Elite's* best-known aspect.

"Why didn't we do trading first? Because [combat] is a big, big risk," chief creative officer **Jonny Watts** explains. "We didn't want to underestimate how difficult it would be to get the feel right but still have all this longevity in. We're really pleased at the way the alpha backers have responded, [saying] that it feels *right*. That was down to iteration upon iteration upon iteration. That's why we did [combat and flight] first, because it was a



This ominous-looking craft is the Anaconda. A more ponderous beast than the lithe Cobra, it's still bristling with mounting points for deadly turret guns. It also boasts a roomy cargo bay

bigger risk than people might think. You can't trivialise how something feels to play."

Frontier's certainly getting something right: the current build is enticing members of the team in early to play it before work. "The most important thing we've done, and the most difficult thing, is to make the moment-to-moment combat fun," says CEO **David Braben**. "That's a challenge I think I'm happy with. There are always things at the edges I want to change and improve, but I think we've got the bricks and mortar of the house in place. We now want to put in the windows and doors."

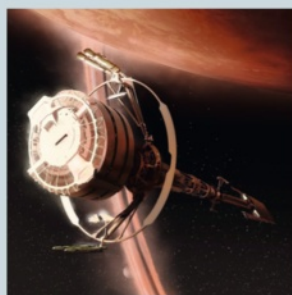
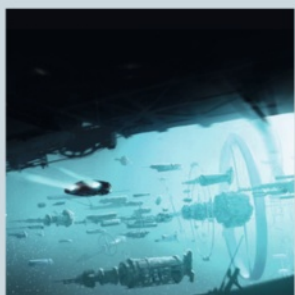
THIS IS A GAME OF STAGGERING AMBITION: EVERY VISIBLE STAR IN THE NIGHT SKY WILL BE PRESENT

That's enough windows and doors for somewhere in the order of one hundred billion star systems. Many of those will have upwards of 100 celestial bodies in them, including planets, moons, space stations and even other stars in some systems. *Elite: Dangerous* is a game of staggering ambition: every visible star in the night sky will be present, their movements dictated by gravity. Beyond that, the remainder of our galaxy will be procedurally generated according to real scientific data, but the technology will be intermingled with artistry.

"Procedural generation magnifies what the artist is doing," says Braben. "An artist can draw something and [our technology] can use that input to create more of the



FROM TOP Frontier founder and CEO David Braben; Jonny Watts, chief creative officer



ABOVE The first time you see it in motion, *Elite: Dangerous* catches you off guard. It looks incredible. Its realtime lighting, for instance, sees the thrusters of ships ahead of you lighting up your cockpit. BELOW Space stations provide a place of refuge from the dangers of open vacuum, as well as points for pilots and traders to converge on. A planned post-release update will enable you to walk around and explore them too



A RIFT IN SPACETIME

While placing an Oculus Rift on your head to play *Dangerous* is initially disappointing thanks to the dev kit's poor resolution, the yearning for HD visuals soon fades away once you start flying. Dogfighting becomes even more exciting when you can track the positions of enemies just by looking back over your shoulder. It's so good, in fact, that when you return to not playing with it, you can't help but feel restricted. A quick push of the mouse to look at the additional screens on the left and right of your cockpit suddenly feels like an enormous effort. And the first time your canopy gives way while using a Rift headset is a terrifying moment.

"Some of the effects aren't so apparent with Oculus because of the resolution," Braben admits, "but I think they will become so as the device improves."

It's worth noting that despite spending several missions with a Rift strapped on, we didn't feel queasy at all, a result Braben puts down to the cockpit being rendered around you, which helps your brain adjust. Early builds had no cockpit and apparently left pilots feeling groggy.

same thing. Equally, if you use a tool to create and lay out a planet, an artist can look at it and tune that until it looks just right. Get the lighting right, the colouring, and from those rules [we can] create any number of planets. The beauty with this is that it'll automatically conform with the scientific rules, which I care about, but also the things that artists care about, too.

"We know what we can see with things like the Hubble Telescope, but we also know what can't be seen. We can use the same statistics to make sure things are about right. There's a very good chance that the [stars] that are procedurally generated are pretty close to the ones that are actually there."

Procedurally generated systems will have a slightly different naming convention to our more local stars, so that you know which ones are real. But Braben envisages a universe of rich variety that rewards explorers, including the ability to label certain discoveries.

"Even when you know there's a star there, you don't know what's in its system. Ultimately, there will be things for explorers to find, not just [the opportunity to] name systems. One hundred years ago, 200 years ago, people could go out adventuring and find things that other people hadn't seen before – that's been lost. I love that spirit, that once you're out of the few tens of thousands, or hundreds of thousands, of systems that people will regularly frequent, generally you'll be on your own. If you see another ship, that's an exciting thing in itself – someone has managed to stock up and get this far out. You can probably meet up and say, 'My so and so is broken. Do you have one of these?' But they might just end up killing you [laughs]."

To get that far out will use up fuel, of course, which you'll have to buy or mine along the way. Travelling locally won't burn too much, but longer-range in-system travel, dubbed Super Cruise internally by the team, is more thirsty, accelerating your ship up to speeds comparable to that of light (Braben compares it to a realtime version of *Elite: Frontier's* fast-forwarding or the J-bound space-skip in the original game).

The third tier of travel is hyperspace, which will see you materialise at your destination almost instantly, but is bookended by a long build-up and cooldown, and uses a great deal of fuel. The studio is still balancing its fuel ranges, but right now ships' capabilities vary from between four to ten light years. In theory, you shouldn't be able to run out of fuel even at the fringes of the galaxy, since a well-shielded ship can scoop hydrogen from the surfaces of gas giants and stars. If you find yourself stranded, however, there's always the option of sending out a distress call.



The F63 Condor is a short-range fighter often deployed by larger capital ships to serve as a defensive fleet. Its small size means it's fast but vulnerable to weapon strikes, so groups of F63s will usually fly in formation to offset the individual danger and concentrate fire

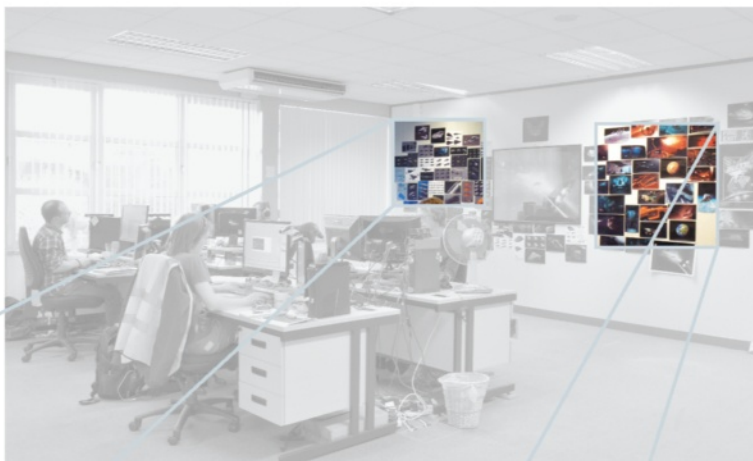
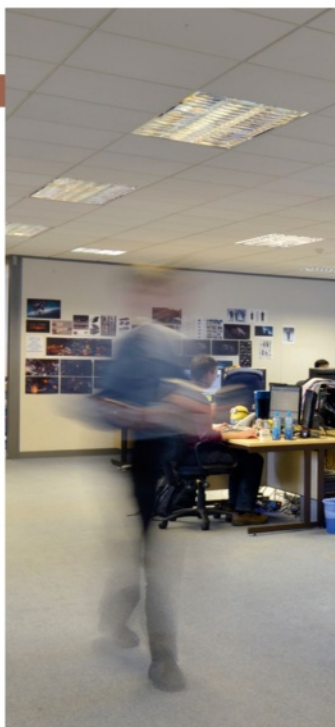
That kind of scale will come later. In its current state, *Elite: Dangerous* is a more modest proposition, existing as a series of discrete combat encounters. The first mission we try is a simple, if morally questionable, chance to acclimatise to the controls. A mining company has employed our services to remove evidence of its less-than-legal waste disposal methods. Taking out floating canisters is hardly taxing, but even this task reveals the nuances of Frontier's painstakingly iterated flight model. It also highlights the audio design. Easing the throttle

**"EVERY FORM HAS A FUNCTION:
SHIPS NEED TO BE AERODYNAMIC TO
GO SKIM ACROSS THE ATMOSPHERE"**

forward brings about a deep, protesting rumble as the engines power up, the sound falling somewhere between a jet engine and the guttural roar of a TIE Fighter.

It bespeaks a utilitarian vision of space flight that leans more towards science than fiction. "We've been having a lot of discussions about what *Elite* is," says Watts, "[and] about the difference between *Elite* and other science fiction. We really are trying to get that reality into it. Every form has a function: ships need to be aerodynamic if they're going to go skim across the atmosphere, and all the hatches need to be the same size, so that when ships connect to each other, you know the passage will match up. Details like this give a sense of realism and believability, which we hope will result in more of an emotional connection to the game."

Those details go as far as correctly scaled grab handles inside every cockpit, positioned to allow pilots to strap in when in zero- or low-G conditions. You'll find the same handles on the outside of ships for maintenance space walks, a feature Braben tells us he intends to



Frontier's offices are located on a science park just outside the centre of Cambridge. They now hold a little over 200 staff

GRAND DESIGNS

The section of Frontier Developments' offices dedicated to *Elite: Dangerous* is festooned in concept art of planets and ships (many of which, Braben confirms to us in front of a visibly relieved art team, are already approved for the game). One designer's desk sports a fleet of scale-model spaceships from popular sci-fi TV series and films. But *Dangerous*'s varied hanger of craft variants will be highly customisable, giving players yet another chance to make their mark on the galaxy.

"Customisation is something we're working on, and it's important," Watts tells us. "I really like Baron Von Richthofen's Flying Circus, where all the planes are painted different colours. They had yellow ones, and he was in the red one. We're not going that extreme, but there was a pride in that. There was a way of evangelising your skill. My Anaconda could be bright pink, saying, 'Come and take me on if you think you're

hard enough!' You can invest in and customise your ship, whether that's paint jobs or tuning engines so that you can use lighter ones and free up more room for cargo."

Planets are being given a lot of attention, too, and while Braben isn't ready to discuss that part of the game, he's aiming to make their surfaces highly detailed. His art team couldn't handcraft a whole universe, of course, but he's aware of the danger of homogenisation by leaving it too much up to algorithms. "I think the real thing to catch with procedural generation is that it's very easy to make things look the same – it's amazing how good the eye is at spotting such things," Braben says. "You do need that artistic input, it's just whether you create everything from scratch each time or whether you use a set of rules. It's the way you embellish it [and] the richness that creates. That's when you see surprising things that make a difference to you."



Q & A :

D A V I D B R A B E N

How have you found the process of making a game in full view of some 25,000 Kickstarter backers?

It's funny, during development you're often concentrating on whatever feature isn't working very well and you lose sight of the fact that actually you've got a lot of really great stuff under your belt. You wouldn't think so, but morale can be quite low in the middle of the project: 'We've got this to do, and this to do.' But actually having to show elements of the game publicly that we're already happy with is fantastic. It's 'Actually, it is pretty good,' not 'I wish we could sort this.' It's like your kid's first day at school – you want to know how they react.

So it's reasonable to say that you're happy with the way the project is shaping up.

Now that the combat is sound, it will just keep getting richer. At the moment, [we have] a very narrow and well-refined scenario. Those scenarios are emergent things that come from gameplay – 'I don't want to be seen by him; I want to get out of here,' so the objective is just to run away, which feels really weak. In the very early days of the first *Elite*, when we were doing it as a combat game, it felt very repetitive. But very quickly, once the context changes, you think, 'Oh, Christ, I have to get this gold through. I've got such a good price on it. If I can get it to this space station... Oh, no, I'm being attacked!' It contextualises running away and makes so much sense.

Presumably you have similar concerns of repetition within a procedural galaxy?

One of the challenges of the really big galaxy is geography, and,

yes, the problem with sameness, where every location is the same as any other. So what you need is as many differentiators as possible – they can look different and have differently coloured stars, but what matters is what's there. So planets might have agriculture or industry, or an expert who can tune your engine to make it more fuel efficient. And we looked at how to make trading itself interesting by making it really rich. That meant introducing all sorts of content, such as luxury goods that are location dependent; labelling and branding will be much more valuable a long way away, rather than just on the doorstep. If it's wheat, it's wheat – it doesn't matter where it came from – but that doesn't mean there isn't a specialist product that's being made from a very fine version of it.

And how about the problem of grieving in a universe where violence is always an option?

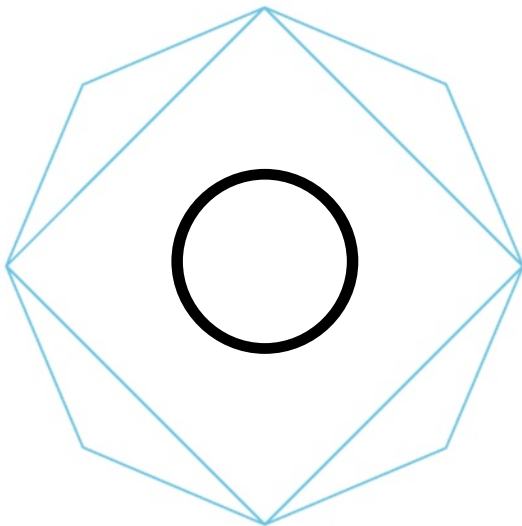
One of the biggest worries with MMORPGs is gamer grieving if you allow PVP kills and the ways we can balance that. We've done that on several different layers. At the top level, the game rules make it harder to [be a griefer], simply because if you attack another player, you immediately become a pirate and then you get a bounty on your head, which means it's fair game for other players to attack you. There's already this top level of balancing, so it's then how the game responds to that.



implement further down the line. Gravity is especially important to Braben, who dispensed with the notion of simulating artificially generated gravity from the off. "Even if you could do it technically, it would consume stupid amounts of power, and it's so easy to just rotate things," he explains. "I think that's what people would do."

And that eye for detail permeates the entire game. Our Cobra's cockpit, for example, is bristling with tech. It could be overwhelming, but *Dangerous* has been designed around nested layers of complexity to provide a natural progression curve as you gain experience. New pilots need worry about little more than thrust, their direction of travel and, if they decide to stray out of safe space, the fire button.

The level of control is up to you, though, and that extends to the hardware you play with. While the studio initially tuned the game using a 360 controller, we played most of our session using Saitek's X52 joystick-and-throttle setup. The controller works well – you'll see plenty of Frontier's own using it – but it's clear that a flight stick is the most natural fit for *Elite*, the difference being akin to playing a racing game with a good-quality wheel instead of a pad. Add in surround sound and Oculus Rift (see 'A rift in spacetime'), and it's almost enough to make us forget that we're sitting at a desk in Cambridge.



nce you get accustomed to the basic controls, you'll want to start managing your ship's power distribution across engines, systems and weapons. These are displayed in a triangular grouping on the right of your cockpit's instruments, and clicking the relevant direction will incrementally divert resources to that area, reducing your ship's capacity for powering the other two as a result. This is done using the nub positioned on the top of the X52 joystick, or the D-pad on a controller. If the enemy is



Weapons are mounted using hardpoints on your ship and come in several different sizes. If your gun is smaller than a hardpoint's maximum capacity, you can also have it gimballed, which will allow it to track enemies slightly and improve your accuracy

pummeling your shields, diverting energy to systems to keep them going might just provide the extra few seconds you need to turn the tables or escape. Conversely, if you're behind your quarry with nothing else to worry about, diverting power to weapons will stop your guns overheating as quickly, helping you maximise your advantage. Using hyperspace, meanwhile, requires you to divert power to the engines while it charges up, leaving you temporarily vulnerable.

"You can fly around and do things right from the get go," Watts explains. "But if you're in multiplayer and up against someone who's your equal then just this one per cent, two per cent advantage should mean the difference between winning the bounty or not."

Braben cites *Call Of Duty* as inspiration, where a tiny margin between different weapons can grant you the edge. He's quick to stress that *Dangerous* is still being balanced in this respect, but the concept's appeal – of achieving victory not just through skilful piloting, but also through cool-headed management of your ship's systems in the heat of battle – is undeniable.

Power management is just the first layer of complexity, however. Using the mouse to look to the right of our Cobra's cockpit reveals another screen, which can be used to define 'fire groups' – custom sets of equipment that can be switched between rapidly when needed. You might, for example, have a beam laser and homing missile loadout in one; diagnostic hardware, such as scanners, in a second; and a ready-made Gatling-gun-focused stealth group in another.

A Gatling gun might not be an obvious choice for going unnoticed, but temperature is key in this universe. Your heat signature dictates how visible you are to the instruments of other ships, so a mechanical weapon, which dissipates the majority of its heat via its projectiles, is a sensible choice for staying off the radar. A beam laser may be more powerful, but the tradeoff is that the weapon system heats up quickly.

Heat is a problem for your ship, too. A cockpit readout shows how hot you're running, but you can take a couple of measures to reduce your thermal footprint. The quickest is using up a heat sink, which absorbs excess energy before being launched into space like a flare, possibly attracting the attention of trailing heat-seeking missiles in the process. The second option is to seal up the ship by closing its vents. Doing so will stop your ship expelling heat at the cost of it building up internally – get too hot and you risk damaging essential



DANGER ZONE

The Elite Federation returns in *Dangerous*, the game itself named after the ranking two places shy of the auspicious Elite pilot top spot. In this future, the sort of pilots who reach the highest accolade tend to be rich as a result of their exploits and have little time for jobs that they see as below them – escorting politicians or their families, for example. As such, the Elite pilots have agreed to admit those with lesser ratings into their fold, endorsing them to potential clients for profit. Dangerous pilots get to wear the same logo on their jumpsuit, albeit with their rank stitched underneath.

"It's the lowest rank they would accept into the Elite," Braben explains, "because the whole point is that they are just as good, they just haven't served their time yet – they haven't managed to get up that far. They're blessed by the Elite Federation, and that means that you can get those prestigious opportunities and they will take a cut from that."

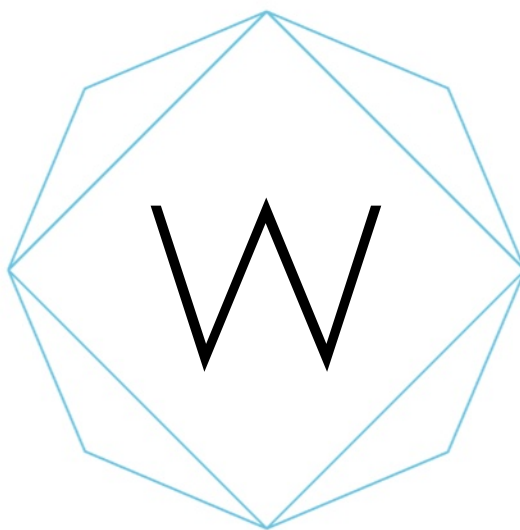
systems. Hyperspace travel requires closed vents, too, adding another range-limiting factor to consider on top of your fuel capacity.

Another mission we play – called Predator Or Prey – pits us against four multipurpose Sidewinders and one much more heavily armed Cobra fighter in an asteroid field. We need only take out the Sidewinders to win the scenario, so there's little point in risking more than we have to. By keeping our vents closed, we can move in close to a target without alerting the marauding Cobra, periodically releasing one of the three heat sinks taking up space in our cargo bay in order to keep our ship at a workable temperature.

Master all these systems and there's one level deeper to go: gutsy aces can switch off flight assist, providing even finer, if less stable, control. All ships come equipped with lateral thrusters, which are used in combination with flight assist to allow for subtle changes to velocity and are particularly useful for adjusting trajectories during docking. But their effects are far more profound without a computer keeping tabs on things, placing you firmly in the grasp of gravity and inertia. Early-access backers are learning how to use thrusters to their advantage, performing advanced acrobatic manoeuvres such as flipping their ships to face chasing enemies without changing their flight path.

All of these options and systems are available from the start, a decision that's indicative of Frontier's intention to put the responsibility for improving your piloting skills firmly in your own hands. "Artificial progression, where you become a level-four pilot or whatever and can suddenly do more things, is bizarre to me," Braben tells us. "It's almost a reverse learning curve; the game gets easier the more you get into it! *Elite* has always been about learning to be a good pilot. But you do have the equivalent of those levels as you're learning more about the game and buying ever-better kit for your ship."

Your ship is as much a part of your character as the pilot you play, a point Braben wants to emphasise by building on the concept of ship manufacturers introduced in *Frontier: Elite II*. While that was mostly an exercise in nomenclature, *Dangerous's* manufacturers will each have an origin, a history, geographical and political allegiances, and their own recognisable aesthetic. We're given the example of the difference between Mercedes and JCB: the former name carries prestige, especially beyond the European mainland, while the latter is cheaper to repair and more sturdy, if not as pretty. "If you think of the number of different of roles that you're doing in *Elite*, that sort of fits," Braben says. "And you don't want to crash into a JCB..."



hile you may not be levelling up a character, you will have a reputation to worry about. "It's not a level as in something like *Skyrim*, where your abilities go up," Braben explains, "but it opens more and more of the game up to you. If you were someone finding a pilot to do a job, you wouldn't want a rookie to do it, you'd want someone with experience."

In the original *Elite*, your Combat Rating was dictated by your ranking (see 'Danger zone'), but now your reputation will be monitored by the Pilot's Federation, and it's based on an array of behaviours. Contacting, trading and other progression routes that Frontier is yet to reveal will all feed into your ranking, while actions such as attacking innocent or unarmed players will be looked upon dimly, resulting in a bounty on your head. *Elite* is all about choice, of course, and you won't have to focus on a single career path or behaviour. A trader might come

ACTIONS SUCH AS ATTACKING INNOCENT OR UNARMED PLAYERS WILL BE LOOKED UPON DIMLY

across a pilot with a price on their head en route and decide to become an impromptu bounty hunter.

Elite's multiplayer setup, however, exists somewhere between the *Dark Souls* multiverse and a full-on MMORPG. *Dangerous's* universe will fracture into shards as you explore, matchmaking you with similarly skilled pilots and your friends. But while that means you won't decelerate from hyperspace to find tens of thousands of ships swarming in a system, everybody's activities will be aggregated to allow for a fluid economy.

"What if players cooperate and try to drive the price [of a commodity] down, flooding the market with massive amounts of a product? How would the game respond to that?" Braben asks. "Imagine loads of people flood the market with grain. People would stop buying it and the price would go down. Then people would start stocking up as it's so cheap, but there will come a point where you can't store it, or you start feeding it to animals or whatever. In the opposite direction, you can create a famine, where the price skyrockets and people start



1 Weapons pop up with a press of the trigger, ready to fire with a second squeeze.
 2 The reticle tracks enemies and displays the ideal spot ahead of ships to aim your fire at.
 3 *Elite*'s radar remains, giving you a readout of nearby heat signatures.
 4 Your shields are denoted by a blue circle around an image of your ship. Hull integrity sits below. 5 This readout shows how much power is assigned to systems, weapons and engines. 6 You can manage loadouts and fire groups from here



LEFT Attacking large, turret-armed ships such as this head-on is suicide. Instead, getting behind them to where their defences are weakest is essential. Whether you can survive long enough to manoeuvre into position is another matter entirely.
 BELOW With this fighter in your sights, it makes sense to divert power to your weapons so that you can sustain longer barrages before your guns overheat. Enemy shields and hull damage are displayed to the left of your cockpit





A still from the first in-engine footage of *Elite: Dangerous* released by Frontier. In the clip, two capital ships face off as fleets attempt to turn the tide of the battle

getting hungry. We're looking at how that drives missions, where suddenly the demand is disproportionately high."

While socio-economic tides will ebb and flow in well-frequented systems, the fringes of society may present greater opportunities for prospectors. You can mine in core systems but, thanks to *Dangerous's* player aggregation, the rarest materials will likely be in short supply, if not entirely diminished. If you go to virgin space, you'll have a higher chance of finding untapped veins, but you will also be straying from the auspices of the law and its protection.

"You want to be quite private about it," Braben warns, "but you can come back with a big haul. And you might choose to tell your friends, 'In this system, if you go to this place, it's really high in certain minerals.'"

Tradeable information will play an important role in the game, even providing a source of income if you choose to charge for it. And the kind of valuable knowledge you can offer won't just be limited to the location of mineral-rich asteroids. Perhaps an engineer in a relatively safe system can tune a particular weapon to make it two or three per cent more powerful, but you hear a rumour that someone else in a more dangerous area can achieve four or five per cent. Do you risk venturing farther afield or play it safe?

"We can put those rumours in, too," Watts says.

"Yes, and some of them will be true!" Braben laughs.

Travelling to a new system with friends makes sense, then. Perhaps one pilot could fly an Anaconda – a large ship with weapon turrets and plenty of room for cargo, but limited manoeuvrability – while others guard them in

"WE'RE IN A WONDERFUL ARMS RACE OF THINGS THAT MAKE YOU STEALTHY VERSUS THINGS THAT DETECT YOU"

combatoriented Cobras. An agreement could be struck that the profits of the haul will be shared among the group. But once whatever cargo you find is secure, there's nothing stopping anyone betraying their comrades for a larger cut. Escaping justice won't be easy, however – ships travelling in Super Cruise or even hyperspace can be tracked and followed. You can even lasso players out of Super Cruise to challenge them. And while stealth is an option, it's far from a sure-fire way to avoid punishment.

"We're in a wonderful arms race of things that make you stealthy versus things that can detect you," Braben says. "So if a pilot puts in better scanners, they have more of a chance of finding you, but you can put in better shielding..."

When it's released later this year, *Elite: Dangerous* will be competing with a raft of other space-based games, but even 30 years after the original's debut, the series is still pushing into uncharted possibility space. *Dangerous* is shaping up to be just as ambitious as its forebears, but crucially, Frontier's initial focus on getting ships feeling right looks to have established an equilibrium between gameplay and scale. The result could well be the first *Elite* that matches its creator's vision.

"What I'm hoping is that players will be able to recognise the night sky and know which star they want to go to," Braben says. "But you can just fly to the stars – you don't have to set a destination." ■



Explore the iPad edition of *Edge* for more content



1 Lakon ships are sturdy and built for industrial jobs and haulage. 2 At the other end of the spectrum, Saud Kruger is an aspirational premium brand that trades in looks and high performance. 3 These pin-badge insignia represent the three major political factions in *Elite*: the Federation, the Empire and the Independent Alliance. 4 Constructed to meet Galactic Navy specifications, the Sidewinder is a versatile support craft. The wedge-shaped Cobra is a deadly fighter, yet remains a popular choice among traders. 5 The Corvette-class Imperial Cutter is also designed to fill many roles, but it's lighter and faster than many ships and often used by smaller factions. 6 A selection of missile concepts. The yellow- and green-tipped projectiles are seekers, while the blue one is an unguided 'dumbfire' device. 7 A close-up of the burly Lakon Type 6. *Elite*'s in-game craft replicate the well-used look of the concept art

SHIP SHAPES

The detail in *Elite: Dangerous* can be overwhelming, since every piece of technology has been fastidiously designed to make sense in the context of the game's universe while still keeping in mind the science we have today. Matching the scale of ship hatches and grab handles is a part of this, as is allowing pilots to gauge other ships' temperatures from the glow surrounding their exhaust vents, but Frontier also wants to ensure that each of the ships among its fleet feels distinctive to fly.

"It's about variety and balance once the core flight feels good," Braben says. "What's it really going to be like to fly an Anaconda, for example? How lumbering does it have to be? From a combat point of view and the weapons you have attached, it becomes almost like a naval battle, where you have to get [your enemies] broadside. From behind, there aren't many weapons firing... [That's different to] flying a Cobra and spending all your time rotating it around."

AN AUDIENCE WITH...

M I C H E L A N C E L

Rayman's creator talks procedural generation, King Kong, and why time is our most precious resource

Michel Ancel is an anomaly in Ubisoft's system: a lone creator working with a tiny team in Montpellier, apparently far from the eyes of the company's Parisian editors. Where the likes of *Watch Dogs* and *Assassin's Creed* occupy thousands of developers in numerous studios across the globe, Ancel's team fits in the Villa, a converted house on a residential street. Now starting his 25th year at Ubisoft, and returning to 3D triple-A development after four years spent in the company of his creation, Rayman, Ancel talks about the past, present and future of small-team development.

In 1999, you told us you'd like to create moments that will stay with people forever – the kind of things Roy Batty talks about in his monologue at the end of Blade Runner. After 15 years, do you feel you've managed it?

Oh, I said that so long ago, but no, not yet. I think I'd love to work on a project with an idea of such [emotion] that you could tell it to people and it would be something they will never forget. But I think there are some very memorable moments in games, and in the one I'm working on we try to make moments memorable and [imbue them] with strong consequences. It's not only about a single moment, but the whole journey that the player is led through in the world. In *Beyond Good & Evil*, we tried to make the player travel and discover different things, and I think it's something that you really need... It's like in a good story, or a good book, or a good movie: the whole book is supposed to bring you to this special moment. It's meant to make you feel something very strong, even if it's short. It's something that we haven't achieved yet [in the game industry]. I have the idea to build this kind of thing, but honestly, it's something that we need to work on.

That *Beyond Good & Evil* is so respected years on suggests you were at least partially successful.

Well, I really like the kind of videogames I call 'sport games'. Not sport-sport games, but platformers and some shooters and so on – an action game where you have a score and each area is mathematical, logical and precise. It's like a competition, not an experience. But when we did *Beyond Good & Evil*, we really wanted to make something different, even if it's in the style of a classic action-adventure game, and make a real *experience* game. I think that it's a game that people are still discovering, and maybe these kinds of games still have a place. We're all waiting for games like *The Last Guardian*, after all.

You once told us how much you learned from *Ico* and *The Wind Waker* for *Beyond Good & Evil*. Have you found much to learn from games in recent years?

Yes, in fact a lot of games. *Minecraft* or *Spelunky* have opened interesting doors with the fact that they generate procedural stuff, and I think there are lots of good ideas that can be combined. People seem to enjoy being in a different world where you're on your own journey, and [I'm fascinated by] procedural generation – this idea of being able to build something different, this idea of infinite worlds and this idea of keeping the game elements subtle in the world, so you are always in emergent situations. Those games, for different reasons, have proved that people are interested in emergent and procedural worlds.

Procedural generation seems entirely contrary to the authored experiences you usually make.

Yeah, but I believe it's so interesting to keep mystery in the game, you know – the feeling of no limits. The developer might give you some goals, but it's very interesting to



"With Beyond Good & Evil, to make a real experience it's a game that people



CV

In 1989, at the age of 17, Ancel joined Ubisoft's Montpellier team as a graphic artist, and by 1992 was developing his own creation, *Rayman*. That game was released in 1995, with a sequel in 1999. *Beyond Good & Evil* (2003) followed, but development issues turned it into a longer project. Combined with *King Kong's* (2005) necessarily speedy development, this seems to have convinced Ancel of the vitality of well-managed small-team projects. *Rayman Raving Rabbids* (2006) was turned around quickly, and when *Beyond Good & Evil 2* stuttered, Ancel was able to produce *Rayman Origins* (2011) and *Legends* (2013) with a tiny core team. His new project, likely to be *Beyond Good & Evil 2*, is being developed by the *Legends* team.

not see the limits of the game, and I'm certainly intrigued by how the combinations of simple elements can create new situations. I'm not surprised [Hello Games is making *No Man's Sky*]. It's a really different thing and they are one of the most different studios in the world. I think that limitlessness is something I felt playing games on 16bit computers. It's very interesting and it's good to see that it can be made by small teams.

That Hello Games can build a galaxy with only four people is proof of the power of procedural generation. You work with a small team at Ubisoft Montpellier – comparatively small next to *Watch Dogs*, at least – so what are the benefits of a small team for you?

Mainly, I think it's the ability of people to share, because the main issue in developing a game is having a connection between people. I think when you look now at some of the most successful teams – Naughty Dog, for example – the people who are leading those teams are excellent communicators who have developed other games, and they are able to connect people with their team. When you have a big team and you don't have this connection with the people, you try to make an engine or a tool that will be capable of filling in every blank. It's very complex, because if I'm a programmer and I don't exactly understand the game [then] I'm going to make a more generic graphics engine. But if you take the time to talk to the people and really talk about what we need and what they want, then you can really optimise and make something unique.

Can a small team compete with that bigger, more unwieldy team in the commercial space?

I believe technology allows you to make good choices and see the creativity in your hands [more easily] than you could with a lot of people, and for sure the technology, and procedural generation, can help a small team make great things. I think it's all about how you see the creativity in the first place and how you believe in it. It's important when the team is really involved in the kind of game we want to do. The core Montpellier team is around ten or 15 people maximum. The good thing is we have a lot of

talented people that can join us for periods... Like a movie, we know these guys will come and work with us again, but they will come at the right time, when we need an outsider.

Do you call on other Ubisoft studios for help?

No. I have done in the past a little bit, but not now on my new project. But at the same time, it's very cool to share with teams – sharing solutions, not problems. It's more that when we finish a project, we can send our content to others. It's a good feeling when you're sharing more in a positive way. Very cool.

Operating a small team means you're burning less money than other Ubisoft studios. Does that mean you have more freedom on the game you're making?

I think yes and no. It gives you more freedom, but the question you're always asked is about time more than money. We need the time for people to learn and understand things, and it can take a long time to connect everyone to make sure they're going in the same direction. Time is more important than the number of people. I think when you're making a game, if you don't take time to think, you can easily put yourself in a bad situation.

What would you consider a bad situation?

Well, [Peter Jackson's] *King Kong* was supposed to be thirdperson shooter with a group of people, and it was really nasty, because the animations were very complex. We spent so long on them that in the end we decided to move to firstperson and remove all the animation work for the main character. That saved us time and the benefit was to present the game to players as if it were a movie. It was very interesting, very cinematic, more immersive and simpler to do. So this decision was really important. I was really happy with *Rayman 2*, *Beyond Good & Evil* was good too, but *King Kong* was one of the games I liked the most, because it was the first game in which I decided to not put myself in bad situations, and to find good ideas to simplify the work first. In the end, it was done in a short time, but with most of the things that we wanted in it. I think I learned more on that game than on a lot of other games.

we really wanted game. I think that are still discovering"



I think when we're making big worlds, we're always the first ones to find challenges in the wrong places. Rockstar made a very interesting game [in *GTAV*], and it needed to produce a real city, and that's a huge part of the work. It also wanted to do some very complex [systemic] things, and that kind of decision can hurt a smaller team a lot. If you ignore the complex things that people don't care about, maybe you can save some time. That's the exact thing we're trying to do to make the game we want. I believe there are a lot of difficult choices that people [wouldn't notice if you lost them] that will make sure your work is easier.

In your first ever interview with us, even before the release of *Ico*, you spoke about how Japan was so good at putting emotion into games and how the west lagged behind. Do you think that's changed?

I don't know if I know enough to answer this question. I would say that Japanese developers are very good at making believable worlds, and at making innovative content and the visual and external appearance, even if they're not always that realistic. Maybe western developers still have some work to do on being able to achieve this. I think we are good at making games — better than 20 years ago. We know how to take care with design better than before, but now the next step is to move away a little bit from the graphics. We know how to make games, but we need to work on how to make them really exciting and mysterious at the same time. We've made games with big cinematics and expensive sequences, and we've tried to make the games for millions of people. Now there are other explorations that we need to do.

Even back when you were making *Rayman 2*, you were critical of the industry's obsession with visuals. Is that a problem again at the start of a new generation?

It's a tough question. I think you can create emotions with the journey and experience you have by playing a game, and that's not always connected to the graphical quality. You can achieve very good things with the last generation of graphics. And while I believe that it's cool to keep the player immersed, sometimes the best way to do that is to simplify

what you want to do, so it's still something people believe in. It's why games like *Ico* work so well: the world around you is very blurry, but what you see up close is very well done, and they don't show you too much of anything that didn't need to be seen. They leave things to the imagination.

Does the new generation of hardware make it easier to bring your vision to life, or has the step to new consoles made your job tougher?

I believe it keeps getting better and better, actually. Especially this generation, where I've seen Nintendo and Microsoft and Sony all working on making consoles easier to work on. I think PS2 and PS3 were difficult consoles. Of course, if you want to make a game on a console, you have to work hard, but now everyone feels that the simple things can be done simply and it won't kill you.

***Ico* was a great game, but it didn't sell very well, and simple experiential games often tend to underperform commercially. How willing is Ubisoft to allow you to make your next game the way you want to make it?**

Creating a balance between being independent and the commercial issues is important, but I've been there, I have the experience and they believe I can balance these ideas. We must take care of being true to our ideas, and I think [it's like] in the movie industry. In a movie, there is something to take out of the story, something waiting inside that will appeal if you communicate it right. Too much of the time, [publishers] are not connected to the content of the game. For example, in the days of *Ico* and even *Beyond Good & Evil*, they didn't fully understand the communication problem we have with players. [Players] see a trailer, don't get what it's about, and that's the end of it. We must pay attention to these things and I think we're taking care of that.

You've spent at least 15 years chasing a moment like the ones referenced at the end of *Blade Runner*. Can you achieve that with your next game?

I hope so, yes. I would love it to. It's designed to produce those kinds of moments... Yes, definitely. ■

It's a common myth that Rayman's disembodied hands and feet are due to an early technical constraint. He's the only one in his world without limbs because "he's the special one," Ancel explains

What happened to the iOS gaming revolution?

How clones, fear, sanitisation and free-to-play
are souring the sweetness of Apple's platform

Much has changed in the two years since we called Apple “the hottest property in handheld gaming” and said that the company had “changed the videogame industry irrevocably”. Between £236 and today, Apple co-founder Steve Jobs has passed away, iPhone 5 has launched and bifurcated, Game Center’s pokertable felt has been torn off in favour of a spartan interface, and a wave of licensed iOS controllers has reached the market, drawing iPhones and iPads closer to the traditional world of videogame hardware. In other respects, though, nothing is different – Apple seems no closer to infiltrating the home console business through its set-top box, for example.

But crucially – at least for the people who have seen iOS platforms become integral parts of their gaming lives – it feels like the potential we saw in Apple’s devices to become a disruptive force has dissipated. Where we once saw a promising new marketplace of fresh ideas, unrestricted creativity, and daring new ways to play, the App Store of 2014 is swamped with cash-guzzling junk, shameless knockoffs and predictable sequels. Games worth discovering still exist, but they mostly dwell on the fringes and in the shadows, while endless horror stories suggest that paid-for games are simply no longer profitable and are dying out. What happened to the iOS gaming revolution?

The App Store is still turning over an extraordinary amount of money – the marketplace attracted spending in the region of \$1bn in December 2013 alone – but the lion’s share of the profits is going to an elite cabal of developers making free-to-play games. The App Store’s Top Grossing chart, which remains the most prominent method of getting games in front of players, has effectively frozen. “All of the top-ten-grossing apps in 2013 were over a year old,” says free-to-play design consultant **Nicholas Lovell**. “There is no other entertainment industry where month on month it’s the same things at the top of the charts – not for books, not for DVDs, not for movies.”

This chart has become a self-sustaining cycle, acting as a billboard for games such as King’s *Candy Crush Saga* the whole year round, which in turn keeps them at the top. And while the most egregious ways to game the rankings have been stamped out by Apple, “people are definitely buying their way to chart positions”, according to Lovell. “There’s no doubt about that.”

“I think the Top Grossing charts should be removed from the stores,” says **Barry Meade** of *The Room* developer Fireproof Games. “It’s entirely unreflective of what is actually for sale and teaches users nothing about the exciting new stuff that’s out there on their devices.”

But no matter how much the stagnant chart positions have played a role in free-to-play’s uprising, it’s not surprising that the model would become dominant on iOS and Android. These platforms have always been skewed towards those looking to fill snatched moments here and there, and they’re markets where straightforward, inexpensive games such as *Angry Birds* have long ruled the roost. But dropping up-front pricetags has smashed even the perceived barrier to entry, massively broadening the player pool.

In itself, free-to-play isn’t an evil phrase or business model. Even self-identifying ‘hardcore’ gamers have flocked to free PC games such as *Dota 2* and *PlanetSide 2*, after all. And there are certainly cases on iOS where the model supports, rather than undermines, an enjoyable game design, most notably in GungHo’s *Puzzle & Dragons*. But there’s still a problem. “With seemingly everybody in mobile development hearing the call of the cash, free-to-play mechanics are skewing investment into an ever-narrowing field of game types,” Meade warns.

Successful free-to-play games tend to be endless runners, match-three puzzlers, lightweight city builders and strategy games, with few exceptions. Attempts to adopt the model beyond this narrow band have not been positively received: hyped FPS *The Drowning* was critically panned, while even a big-name, well-promoted title such as PopCap’s *Plants Vs Zombies 2* dropped out of the top 100 in many countries’ Top Grossing charts in a matter of months.

“Some types of game, particularly those with skill-based mechanics, really don’t suit free-to-play at all,” says **Paul Taylor** of *Frozen Synapse* creator *Mode 7*. “I don’t think developers should feel pressure to take them in that direction.”

Indie developers are having an especially troubled time in this environment. For every story about a venture-capital-backed superfirm pulling in daily revenues of \$2m, there’s another tragic tale of some tiny studio trying to find success in the F2P market and getting crushed. Mikengreg’s *Gasketball* gave too much away for free and flopped. Earnings from Rubicon’s *Combat Monsters* have been “tragically disappointing”, according to the studio’s **Paul Johnson**. When



From top: F2P design consultant Nicholas Lovell; Fireproof Games co-founder Barry Meade; Paul Taylor, co-managing director of Mode 7 Games; Camouflaj founder Ryan Payton; Simon Flesser, co-founder of Simogo; Loveshack co-founder Joshua Boggs

Radiangames launched F2P puzzler *Bombcats*, "people just never felt the need to pay for stuff", explains creator **Luke Schneider**.

Punch Quest was "way too generous" at launch, says Rocketcat Games' **Kepa Auwae**. Just 0.1 per cent of the game's players spend money on the game. "We raised the prices of everything by around six times [to make it successful]," Auwae explains. "With this style of game, where people buy progress, you really want to intentionally hobble the balance of your game so it preys on people's impatience."

Namco Bandai's recently released iOS version of *Tales Of Phantasia* demonstrates how F2P cash grabs can destroy a game, though. In this incarnation – available only as a free title – the game's difficulty has been cranked up and key save points have been removed in a bid to get players to buy resurrection orbs at \$2 a pop.

Lovell notes that "free-to-play games are a different skill [for developers], and you've got to make games that you expect to maintain and support for a long time, which is something that not all developers want to do".

So long as the same clutch of top free-to-play games are turning over the same incredible amounts of money, however, we'll continue to see titles that fit neatly into the same narrow but proven categories. And the influx of publishers to the market isn't helping. "It's great that some are making loads of money from free-to-play," says Meade, "but the inability of publishers to see what else mobile gaming can be leads them to be profit-chasing and risk-averse to a ridiculous degree. The sheer ubiquity of free-to-play is freezing mobile gaming at a very shallow and immature state of its development, when it should be at its most exciting, dynamic and diverse."

The issues facing the iOS gaming landscape because of free-to-play also spill out in the form of hundreds of games content to chase the tails of ideas that have worked in the past. It's impossible to miss, for example, the explosion of games that copy the core gameplay template of Supercell's evergreen *Clash Of Clans* almost to the letter, including Gree's *Call To Arms*, Gameloft's *Total Conquest*, and Space Ape's *Samurai Siege*. EA's reboot of *Dungeon Keeper* – a series born at UK studio Bullfrog in the '90s, which helped it forge a reputation for thinking up and executing original concepts – also leans on the same gameplay loops. It's perhaps most telling of all that Supercell's next game, *Boom Beach*, which is

currently undergoing beta testing in Canada, is also a twist on *Clash Of Clans*, with Vikings and dragons replaced by soldiers and landing craft.

Lovell puts this kind of risk aversion down to "creative fear". "A lot of my clients are starting with an endless runner simply because they want to learn the free-to-play business in a known genre," he says. "Think of it like a journeyman wood maker who had to do some basic pieces in order to understand his craft."

This all makes free-to-play sound like a toxic substance that's killing off innovative games single-handedly. But a number of free-to-play iOS games have proven themselves as worthwhile pieces of entertainment, and there are further culprits to consider when looking for reasons behind the App Store's troubling stagnation.

Visibility, and therefore discoverability, continues to be an issue, but a more offensive trend is the proliferation of cheap clones of indie games on iOS, brought about by the App Store's low barrier to entry. Vlambeer almost didn't make Apple's iPhone Game Of The Year for 2013, compulsive angling sim *Ridiculous Fishing*, because a clone named *Ninja Fishing* beat it to market and sucked away the team's motivation – not to mention potential customers and profits – like a spacecraft's airlock.

Such blatant copycatting doesn't affect only indies, either. Homemade Games' recently released *Front Wars*, for example, is a ruthlessly executed clone of Intelligent Systems' legendary strategy game *Advance Wars*, going so far as to riff on the original's cover art with its App icon. That it is a well-made rip-off – bringing to Apple's platforms what Nintendo will not – does little to make up for its shamelessness. It feels like it would never reach the market as a PC title, but in the wild west of the iOS market, there it is.

Some are attempting to bring law to the App Store, if not justice. The most recently documented case is King's trademarking of the word 'Candy' and its application for 'Saga'. It says this helps it to combat the clones, such as *Candy Blast Mania*. Less easily understandable, however, despite statements to clarify its position, is its decision to oppose Stic's trademark for PC strategy game *The Banner Saga*. While the nuances of trademark law are complex, one thing is clear: it will be a bad day if original games suffer because of ripofts on other platforms.

Then there's Apple's stringent rules on what content is acceptable in the iOS games department. These rules forced the removal of

Twenty to play today

In E236, we suggested 50 iOS games that deserved your time. These 20 represent the progress of the past two years, and span from cult curios to the big names that spawn clones.

RAYMAN JUNGLE RUN

PASTAGAMES, UBISOFT

Of iOS's copious auto-runners, PastaGames' reduction of all that's good about *Rayman* sits at the top. With none of the microtransaction contrivances that forced *Fiesta Run*'s spoilsport level design, *Jungle Run* feels like a complete platform game even without a D-pad.

RYMDKAPSEL GRAPEFRUKT

Swedish one-man studio Grapefrukt's game distils the tower defence and strategy genres to their essence, tasking players with constructing a space base from a random selection of tetrominoes. Build, gather and defend to stave off your inevitable death for as long as possible.

YEAR WALK SIMOGO

In this disquieting small-screen experience, Swedish studio Simogo combines local folklore with a series of touchscreen-tuned puzzles. It's a haunting, and macabre, adventure. A cleverly integrated companion app and a breathless endgame complete one of the App Store's most intriguing prospects.

RIDICULOUS FISHING

VLAMBEER

Tilt to avoid schools of fish as your line sinks, grab as many as you can as it rises, then shoot them to bits as they arc into the sky. *Ridiculous Fishing*'s simple conceit masks an upgrade system of surprising depth, and proves that few understand rhythm and feel quite like Vlambeer.

ANGRY BIRDS STAR WARS

ROVIO

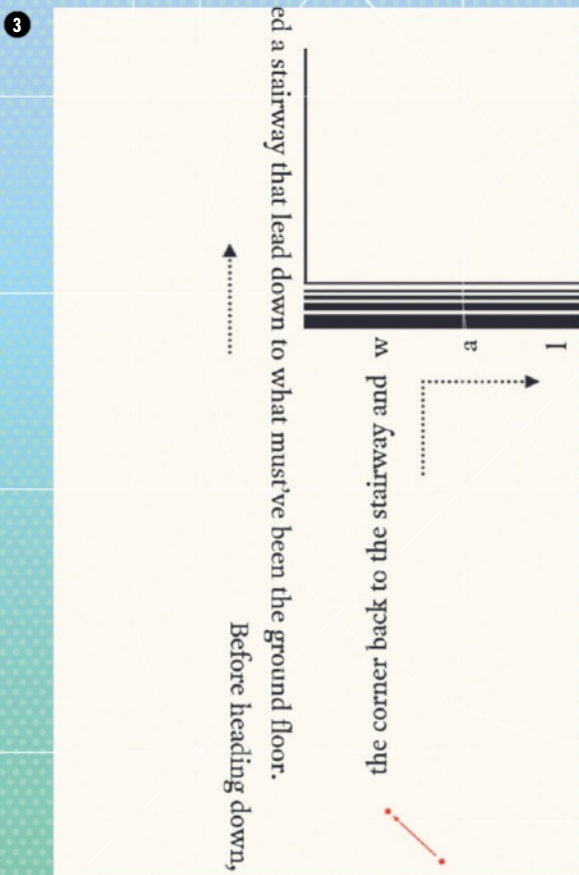
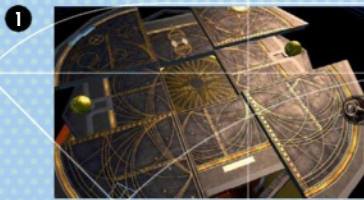
The most complete – and humorous – of Rovio's series, *Angry Birds Star Wars* blends classic bombardment, *Space*'s gravity-based levels and a brand that's almost as well known as its own. Who isn't tempted by the thought of pelting AT-ATs with birds?

BEAT SNEAK BANDIT

SIMOGO

Even without the catchiest tunes this side of the Mushroom Kingdom, Simogo's twist on stealth would be unmissable. Your thief can only move with taps on the beat, which infuses the game's jiving puzzle-box rooms with finger-tapping rhythm to match. Add in a colourful sense of style and the result is a brain-teaser with soul.

"The sheer ubiquity of free-to-play is freezing mobile gaming at a very shallow and immature state of its development"



1 *The Room* has you breaking into an absurdly intricate puzzle box. "We were queuing up ideas for the second one even before we had finished the first," says Fireproof's Barry Meade. 2 Free-to-play flop *Bombcats* didn't do a lot better commercially when it was re-released with a pricetag, but creator Luke Schneider says "the game is a lot more fun when it's properly balanced as a paid game". 3 Sixties-style spy thriller *Device 6* received either a nomination or an honourable mention in every single category at this year's Independent Games Festival awards. 4 "We will never get players on an infinite monetisation treadmill with *République*," says Ryan Payton. "Camouflaj is not in the business of figuring out ways to get rich people to pay six figures into our games." 5 *Framed* is the latest game to get the funding of the Indie Fund investor group, which features backers such as Jonathan Blow and Kelee Santiago. Previous Indie Fund games include *Antichamber* and *Monaco*



Would Lucas Pope have made Papers, Please for iOS with the threat of an App Store rejection hanging over his head?



1 *Black Flag* spinoff *Assassin's Creed: Pirates* is just one gear in Ubisoft's cross-promotional machine, which attempts to spin its time-travelling actioner into every type of media known to man. 2 *Ridiculous Fishing* was nearly scrapped when it was cloned by Gamenauts. Vlambeer's game went on to enormous success, won an Apple Design Award, and was picked as Apple's iPhone Game Of The Year for 2013. 3 PopCap's lawn-based tower-defence game *Plants Vs Zombies 2* went in one end of the EA machine and came out the other with paid-for plants, lots of grinding, and premium power-ups. Player reaction has been mixed. 4 Developer Two Lives Left let fans follow the success of its giant space crab simulation on a post-release Kickstarter-style site called Crabstarter. Almost a year later, the game is well off its \$100,000 goal. 5 *The Drowning* is a free-to-play arena shooter about gunning down creepy oil-drenched monsters using a 'revolutionary' control scheme. But it is compromised by its business model, and attracted the ire of many critics.

Sweatshop HD – a satirical game about a production line manned by children – which crippled UK developer Littleloud. Games that have anything to say about the conditions at the factories where iPhones are assembled have been banned. A game about the Syrian civil war was forced to change setting to a fictional country, while a game about smuggling illegal immigrants over the Mexican border was turned into a game about carting cuddly animals to the zoo, metamorphosing from *Smuggle Truck* into the more wholesome-sounding *Snuggle Truck*.

Development guidelines urge game creators to distance themselves from touchy subjects and controversial topics: “If you want to criticise a religion, write a book. If you want to describe sex, write a song, or create a medical app”. Would Lucas Pope have made the confronting *Papers, Please* for iOS with the threat of an instant App Store rejection hanging over his head like the big red stamp in his game? Developers with controversial themes to explore are increasingly gravitating towards Android and PC, where content isn’t as sanitised as it is on iOS.

Despite all these hurdles, though, the doom of paid games on iOS has been exaggerated. “Paid games are more than viable for Fireproof. They are a lifesaver and fortune changer,” says Meade, whose box-opening puzzler *The Room* has sold 2.5 million copies to date. Swedish indie studio Simogo has also enjoyed success by swimming against the iOS tide. Last year, it released *Year Walk*, which sold 200,000 copies, and *Device 6*, which sold 100,000. Co-founder **Simon Flessner** believes developers can remain profitable so long as they don’t bet the farm on one enormous project. “I think it’s important to have modest expectations,” he says, “and have good backup [options], and try to build up a good portfolio over a longer period.”

Even games that hew closer to console titles have found success on iOS. Like most paid-for titles, Kickstarted stealth game *République* quickly dropped off the Top Grossing charts, but designer **Ryan Payton** says he’s very pleased, telling us that it’s “actually exceeded our internal goals in early adoption of the Season Pass and international sales”. Payton also believes that “console-quality games definitely have a place on the App Store. This is just the beginning”.

Assassin’s Creed IV spinoff *Assassin’s Creed: Pirates* also enjoyed “significant sales”, according to **Etienne Tardieu**, senior sales manager at

Ubisoft. “The premium market still exists,” he says, “especially on iOS, and Apple has been supportive of our effort on this segment.” Games such as *Infinity Blade*, *Joe Danger* and *Oceanhorn* have also proved successful, despite their higher prices and more traditional audiences.

Games in niche genres do well, too, providing they suit the device. UK studio Slitherine says that its £14/\$20 *Battle Academy* has outsold the PC version by a ratio of ten to one, while Tin Man Games has put out enough mobile remakes of classic choose-your-own-adventure gamebooks to open a small library.

Ports are also sources of profit, and not just for nostalgic classics such as *Grand Theft Auto: San Andreas* and *Sonic The Hedgehog*, or high-profile console games such as *XCOM: Enemy Unknown*. Independent creators are extending the profitability of their PC and console games with App Store releases. “Although *Frozen Synapse* iPad has contributed only a small fraction of [the game’s] total revenue, we were still able to make a reasonable profit on it,” says Mode 7’s Taylor. Developers also expand their reach on the App Store. “Most iPad customers are buying the game on that platform first. Early on in its life, I think quite a few of our PC players picked up the game, but for the most part we seem to be reaching a new audience.”

Silhouette platformer *Limbo*, underworld RTS *Skulls Of The Shogun*, scientific brainteaser *SpaceChem* and sneaky puzzler *Stealth Bastard* all broadened their lifespans on iOS (albeit with the latter renamed as the more Apple-friendly *Stealth, Inc.*). Then, of course, there is *Minecraft*, whose *Pocket Edition* has sold more copies than the PC original. It’s also the only paid game to consistently join the free-to-play titans on the Top Grossing chart, but it’s hard to argue with Lovell when he calls it “an outlier by any definition”.

Looking at the games that have done well for their creators, it becomes obvious that the key to iOS success is little different to any other platform. Not only must a game be of high quality and sufficiently polished, but it needs hype, anticipation and the ear of the press. The one differentiator unique to iOS is promotion from Apple itself via placement in one of its coveted, massively influential ‘Featured’ slots.

So while free-to-play continues to dominate the charts, and limit the sort of experiences that the App Store has to offer, there is still a place for paid games for discerning players. And looking to the rest of 2014, there seems to be a fresh

CLASH OF CLANS SUPERCELL
Clans’ immovable place at the top of the iOS charts has made it the figurehead for all that’s wrong with the App Store, but its evil is overstated. It’s hard to begrudge Supercell a few microtransactions when the core base-building and tower-defence mechanics are executed so well.

THE ROOM FIREPROOF
Fireproof makes the strongest case for touchscreen controls with its beautiful and intricate locked boxes and puzzle tables built to be explored by observation and touch. Apple’s iPad was born for those knobs, buttons, switches and sliders, and mouse control would be a poor substitute for hands-on interaction.

868-HACK MICHAEL BROUGH
In a world saturated by roguelikes, *868-Hack* manages to stand apart thanks to its striking retro computer aesthetic and unflinching difficulty. Risk and reward have rarely been so closely pitched as they are here, with every pickup adding to your hacking abilities but generating yet more unrelenting enemies.

PUZZLE & DRAGONS GUNGHO
‘*Bejeweled* meets *Pokémon*’ is a fine enough pitch, but it’s too simplistic a description for this staggeringly deep game. There’s always something to do – feeding your team to power them up, hunting specific materials to evolve them further, or ranking up to increase your stats. What starts as a bus stop distraction quickly becomes an obsession that eats entire evenings.

SUPER HEXAGON TERRY CAVANAGH
This is a test of reactions in which you guide a triangle through the gaps in various shapes as they collapse towards the centre of the screen. It starts off hard and tops out near inhuman, but every failure is simply a chance to have another go.

SPACETEAM HENRY SMITH
Few games let you ride the catastrophe curve like *Spaceteam*. Your crew of local co-op friends is trapped on a stricken craft, and you need to call out failing systems for others to fix on their instrument panel while everyone else does the same. It’s a frantic, raucous recreation of sci-fi’s tensest moments.

DEVICE 6 SIMOGO
Simogo puts a new spin – literally – on the concept of the text adventure, with players rotating their iOS display to keep up with text that shifts orientation as its amnesiac protagonist explores the environment. It’s remarkable – no wonder it’s a strong contender for IGF domination.

wave of the sort of daring and innovative ideas that led us to call the App Store the hottest property in handheld gaming in **E236**. For proof, consider Ustwo's Escher-inspired *Monument Valley*, Steph Thirion's long-awaited otherworldly epic *Faraway*, the popup papercraft *Tengami* from the ex-Rare developers at Nyamyam, the Japanese superhero management sim *Chroma Squad*, and an inventive game about shuffling comic book panels called *Framed*.

Joshua Boggs, director at Loveshack, defends his decision to launch *Framed* as a paid game exclusively on iOS amid horror stories about the death of premium games by pointing at the numbers. "Apple said this time last year the App Store had 500 million active users," he says. "What excites us about that number, though, isn't an infinite number of dollar signs. It's the potential for what an audience that large means. It means a diverse audience, niche audiences – many people from many different backgrounds, many people looking for different experiences. By making the games that we want to play, we're technically hitting a potentially large demographic that we're a part of."

But he's quick to add that "*Framed* will be heading to other platforms, too, eventually". And that's something you'll hear from a lot of developers who are now making their games for PC as well. It makes good financial sense, but it could have a knock-on effect on the quality of iOS titles. If game creators choose Steam first and iOS later, or make their games with multiple platforms in mind, we may start to miss out on the kind of ideas that really take advantage of a touchscreen. Take, for example, Simogo's *Device 6*, which has you turning your phone on its side and upside down to follow the winding corridors of words, or *Crabitor*, which lets you use four fingers to pantomime the pincers of a ramping space crustacean. Then there's the gyroscope-reliant *Ridiculous Fishing* or the tactile *The Room*. "We have to give tablet owners a reason to look at the paid charts, and that means making ever more interesting and different titles that really exploit the tablet experience over anything that's happened on other platforms," Meade says.

So what's ahead for mobile? Will the introduction of better hardware, like the 64bit chip in your iPad Air, or Nvidia's Unreal Engine 4-capable Tegra K1 unit, change anything?

"We long for the day when the A7 chipset is our minimum spec," says *République* creator

Payton. "That day can't come soon enough." Fireproof's Meade has a similar view: "I think *The Room* was helped by being unabashedly a game for high-end devices."

But Lovell warns that the industry's obsession with faster chips and fancier graphics could be disastrous. "Traditional publishers think it's all about graphical fidelity, which means they will continue to push up the cost of making this stuff without increasing the revenue opportunity."

The recent spate of Apple-approved controllers from gadget makers like MOGA, SteelSeries and Logitech are less interesting to the developers we ask. "As long as they are optional thirdparty peripherals, I don't think controllers will have any major effect on the way we play games on iOS," says Simogo's Flesser.

République is controlled through a one-tap system because "until a large percentage of consumers play iOS games with a gamepad, we're going to continue focusing on developing better ways for players to control touchscreen games", Payton says. "That's how the vast majority of the hundreds of millions of iOS users are interacting with their devices."

The controllers could be part of that ever-present threat that Apple might infiltrate your TV, and take on consoles, but nothing has changed – at least publicly – in that regard since our previous look at Apple's ambitions for the living room back in **E236**.

But the real factors in the future of the iOS gaming landscape will not be chips and controllers, but business models and software. Will we really see the last of the premium games slowly squeezed out in favour of a glut of brainless free-to-play repetition, or will the paid, adventurous and refreshing apps that made us excited about the App Store in the first place hold their niche, or even make a triumphant comeback, in the next few years?

"We're spinning on a super-conservative dime, showing very little vision and no feel for what's possible," says Fireproof's Meade when we ask him to sum up the state of the App Store. "Mobile games in general are designed by committee, in awe of their successful peers, answerable only to player usage data, and tactically designed to give users nothing but what they already know. We think ignoring all of that is our way to sanity and success."

Whether more developers share that way of thinking will determine whether the iOS gaming revolution is truly cancelled, or merely on hold. ■

NEW STAR SOCCER

NEW STAR GAMES

An intoxicating blend of *Flick Kick Football's* controls and *Football Manager's* stat management, *New Star Soccer's* iOS release transformed Simon Read's decade-long hobbyist PC project into a global success. It's even been championed by the very pro sportsmen whose lives, both on and off the pitch, it seeks to recreate.

PANDEMIC:

THE BOARD GAME

F2Z DIGITAL MEDIA

Casting you and up to three friends as CDC agents, *Pandemic* is an intense co-operative game of global infection control. This iPad conversion is beautifully presented, and some of the most social fun you can have with a single Apple device.

SKULLS OF THE SHOGUN

17-BIT

Analogue strategy could have been messy on a touchscreen, but 17-Bit has summoned a superb control scheme for this port. Wickedly irreverent and tactically rich, *Skulls'* turn-based journey suits snatched moments, and crossplatform play keeps this a vital install long after you've finished the 24 story levels.

TILT TO LIVE

ONE MAN LEFT STUDIOS

Geometry Wars for the iOS generation, this accelerometer-controlled survival game simply asks you to avoid the red dots while collecting automatically deployed weapons such as black holes and homing missiles. With no sticks, let alone virtual controls, this is one of the purest shooters out there.

FROZEN SYNAPSE MODE 7

The immediacy of mobile devices has turned sitting down at a PC for anything less than work or a lengthy gaming session into an inconvenience, so *Mode 7* responded with a port of its phase-based strategy game. Now a two-minute turn is never more than a reach into the pocket away.

ZOMBIES, RUN SIX TO START

Those who find repetitive electronic beats aren't quite incentive enough to keep up a fitness routine will find much to like in *Six To Start's* mission-based audio adventure. Start running and within minutes you'll hear the shuffling undead hordes at your back; keep going to gather supplies to improve your home base.

XCOM 2K

XCOM has become the face of premium gaming on iOS, with its premium presentation and premium pricetag, but it's an experiment that worked for 2K. It also prepared the ground for the brilliant *Panzer Corps* at £14/\$20 and a new generation of 'high'-price, high-quality PC ports.

"As long as they are optional thirdparty peripherals, I don't think controllers will have a major effect on how we play iOS games"



1 The fact that Google Play carries *Snuggle Truck* while the App Store has to make do with the defanged *Snuggle Truck* is just one of many stark differences between iOS and Android. 2 Cutesy free-to-play farm sim *Hay Day* joins *Clash Of Clans* at the peak of the Top Grossing charts, making developer Supercell one of the most profitable iOS developers. 3 A perennial sight at the top of the Top Grossing chart, match-three puzzler *Candy Crush Saga* is infamous for its difficulty spikes, which weed out those who will pay from those who won't. 4 *Sweatshop HD* is a confronting game where maximising your score means hiring cheaper child workers, speeding up production and cutting corners. Apple pulled it from iTunes, but it's still playable in your browser (www.playsweatshop.com). 5 Accessible strategy game *Clash Of Clans* has you building a Viking village and defending your handmade homesteads from friends and strangers. Stopping your town from being overrun keeps players coming back to the game. 6 *Year Walk* flies in the face of App Store convention, and not least by tethering its paid game to a free companion app, which collects together the grim mythology behind the in-game shocks

PLAY

REVIEWS. PERSPECTIVES. INTERVIEWS. AND SOME NUMBERS

STILL PLAYING

Dust: An Elysian Tail PC

There's much to like about Dean Dodrill's cartoonish Metroidvania – not least that the former Epic Games artist made the game almost entirely by himself – but vivid art direction and smart world design can't quite paper over its mechanical cracks. Checkpoints are miserly, healing items have barely any effect on a levelled-up energy bar, and a combat system that seems full of possibilities early on gets repetitive quickly.

Tomb Raider: Definitive Edition PS4

This first look at the next generation of HD remake does more than enough to suggest that the days of the blurry up-res are behind us, and is also one in the eye for those wags who heralded it as being little more than a £40 port of the PC version. New textures, subsurface scattering and, predictably, particle effects mean that this is much more than just the 360 version upscaled and with fancy TressFX hair tech.

Resogun PS4

Resogun's obstinate refusal to explain itself beyond the basics belies a twin-stick shooter of surprising depth. Months of practice have seen us graduate from bomb-led, panicked chaos to a knife-sharp operation in which every wave is predicted, humans are tossed to safety from halfway across the level, and Overdrive activations are timed perfectly to wring out every last point on our way to the upper echelons of the global leaderboards.

REVIEWED THIS ISSUE

88 **Castlevania:
Lords Of Shadow 2**
360, PC, PS3

92 **Broken Age: Act 1**
PC

96 **Jazzpunk**
PC

98 **Nidhogg**
PC

100 **Donkey Kong Country:
Tropical Freeze**
Wii U

102 **The Banner Saga**
PC

104 **Octodad: Dadliest Catch**
PC, PS4

105 **The Castle Doctrine**
PC



www.edge-online.com
Up-to-the-minute
reviews and previews



Explore the iPad
edition of Edge for
extra Play content

It's a funny old game

One of the central claims in Double Fine's record-breaking Kickstarter pitch for what would eventually become *Broken Age* (p92) was that the days of publishers bankrolling point-and-click adventures were over. The implicit allegation was that games had forgotten how to be funny.

This month sees the release of several games that fly in the face of the po-faced masses on game store shelves, while also backing up Double Fine's central point. All have comedy at their very cores, but all are made by indie studios, and it's hard to picture EA or Ubisoft seeing any of them as anything approaching a banker. Necrophone's marvellous *Jazzpunk* (p96) is perhaps closest in spirit to *Broken Age* and the comedic point-and-click adventures of yore, but what sets it apart is its pacing. There are no delicate setups to its punchlines: the gags come thick and fast, and not only from its excellent script – it makes sure it justifies its host medium, too, with a wealth of little systems introduced and then thrown away as soon as the funnies hit home.

Octodad (p104) goes even further, with its slapstick mechanics forming the butt of its best jokes. It's a game that recognises the inherent comedy in replacing the standard highly skilled videogame hero with one who struggles to get dressed in the morning without wrecking his bedroom. Unfortunately, things fall apart when it tries to act too much like a traditional game, but its central gag is a good one.

There's room for laughs elsewhere, too. *Nidhogg* (p98) is a tense, remarkably pure fighting game, but it works in light relief with slapstick animation and by having the winner eaten by a massive pink worm. Double Fine was right – few, if any, big publishers would have given *Broken Age* the green light – but this month proves you don't need \$3.3 million in Kickstarter funding to make a game that's funny.



Castlevania: Lords Of Shadow 2

Stealth isn't exactly the first thing that comes to mind when we think of Dracula, the immortal prince of darkness, yet here we are skulking in the shadows to avoid a hulking armoured guard bearing a cannon the size of our protagonist's torso. When there's no obvious route past, we can transform into a rat — no, that's not a typo — passing through grilles and ventilation networks to adjacent rooms, sometimes wrestling with tank-like controls to navigate an electrocuted floor or leap bursts of flames. At the very outset of *Lords Of Shadow 2*, when the vampire formerly known as Gabriel Belmont is awakened from his thousand-year sleep without his powers, this stealthy approach is justifiable to an extent. That MercurySteam keeps returning to it until very late on in this bloated 20-hour adventure, however, is simply baffling.

Good stealth games afford the player a flexible approach and a viable, if fraught, means of getting out of trouble when things go south. *Lords Of Shadow* omits the former — there is only ever one solution — and forcibly disables melee powers, leaving a dark corner and rodent transmutation as your only means of escape. Hideo Kojima, the man who fought Konami suits for this Spanish studio to be given the keys to such a prized series, wrote the book on stealth in videogames. Evidently, he doesn't like to lend it out.

This thoroughly botched yet endlessly reused system is far from *Lords Of Shadows 2*'s only failing. There's the banal and unfailable linear platforming, your next destination shown by a noisy cloud of bats, which kills stone dead the prospect of any meaningful exploration. The bat cloud is itself also deeply flawed. Reach a summit and you'll hear some of the chiropteran screeching that suggests an elevated handhold is nearby. You'll look up and around and find nothing, then look down to find the cloud at your feet, guiding you back to the ledge from which you've just climbed.

There's the dialogue, voiced by a cast headlined by the returning Patrick Stewart as the shady Zobek and Robert Carlyle as Dracula. The former does his best with a hokey script that asks little more of him than gravitas; the latter doesn't so much phone in his lines as fax them to an intern and have them do it instead. You get the sense he'd rather be somewhere else, and you'll soon be inclined to agree with him. The talent — which includes a late-game turn from Jason Isaacs so brief it might as well be a cameo — is wasted, and so too is a setting that's rich in potential. A Gothic reimagining of London set a thousand years in the future should have set hearts racing at MercurySteam, which proved its artistic chops with the first *Lords Of Shadow*. While Dracula's castle and a few other underworld locations come close to matching the first game's memorable artistry, this London is desperately drab and terribly small, with few exteriors and much of

Publisher Konami
Developer MercurySteam
Format 360, PC, PS3 (version tested)
Release February 25 (NA), 28 (EU)

Konami's
Hideo Kojima
wrote the book
on stealth in
videogames.
Evidently, he
doesn't like to
lend it out



the action set in tower blocks, industrial facilities and, incredibly, underground car parks, perhaps the sole videogame location more dreary than the sewer network. There's plenty of those too, of course.

Even more shocking than the unimaginative visual design is how rough it all looks. Running at 720p, but seemingly rendered some way south of that, this is a jagged mess, with texture work that at times wouldn't look out of place in a PS2 game. It's compounded by the fact this is arriving at the fag end of a generation, when expectations are that much higher. There's a bizarre, excessively shallow depth-of-field effect that's clearly being used to disguise poor level of detail on distant objects, frequently kicking in before the focal point of the scene is even onscreen. Even more brazen is the way the frequent, lengthy loading times are hidden behind endless elevators, decontamination showers and supernatural airlocks. It's tempting to think that the frequent text popups reminding you that you can view unlocked concept art in the Extras menu were put there to appease artists aggrieved at the treatment their work received. This artwork is squirrelled about the place alongside the many other collectibles hidden within level furniture, and we found one piece in a bin bag, which felt appropriate in a sad sort of way.

The sole saving grace is the combat system, where sparkly effects and motion blur help show the game at its prettiest, though it's all relative and the system itself is hardly without its issues. The presence of a weapon that refills your health as you land attacks tends to whiff of a flawed system, and the Void Sword, activated with a tap of L1, does just that. R1 activates the Chaos Claws, which sacrifice the range of Belmont's signature whip for attack power great enough to break enemy shields. Use of each is regulated by screen-corner Void and Chaos meters, recharged by absorbing orbs dropped by fallen enemies or infuriatingly spaced-out magical fonts. You'll generate a lot more orbs if you can keep a combo going long enough to fill another meter, but this is a rare event. You're going to get hit a lot.

Every enemy in the game, from the lowest-ranked grunts to gigantic bosses, has the same basic moveset: slow normal attacks that can be countered with a well-timed block, and unblockables, signalled by a sound effect and a red flash, which must be dodged using a dash in the correct direction, since the move has no invincibility. For the bigger enemies, there are also ground pounds that send out AOE shockwaves, which must be jumped. It's genre-standard stuff that's complicated needlessly by that unblockable sound effect being exactly the same for every single enemy in the game. Combine that with a wayward camera and you've got a recipe for trouble, with the mix further soured by the absence of block- or hit-stun. You can be

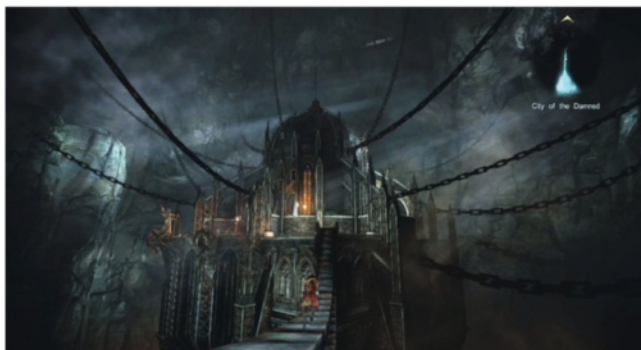


ABOVE This – the attack Aragorn performs if he catches you during a stealthy slog across an autumnal garden – will become a wearying, familiar sight. It's the worst part of the game by some distance.

RIGHT A Synchronised Block, performed by squeezing L2 just before an attack connects, results in some visual snazz and brief slowdown, but next to no practical advantage. A hit or two later, your foe will start attacking again



BELOW There are moments when MercurySteam's artistic flair shines through, but they're undermined by the resolution on consoles. That's remedied on PC, but it still only fixes one of *LOS2*'s many problems



ABOVE Patrick Stewart puts in a better performance as Zobek than Robert Carlyle's Dracula, but you can tell he's aware this is hardly Shakespeare. It's to Stewart's credit that he makes the best of a consistently weak script

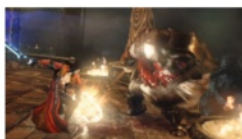


merrily wailing away on an enemy only for them to start up, and execute, an attack in the middle of your combo. When you finally break through an opponent's shield, you'll land a few hits before an AOE shockwave pushes you out of range. The only way of interrupting an opponent's move is to launch them into the air, a feat only possible on smaller enemies and one that still leaves you vulnerable to attacks from the ground, which are even harder to see while airborne.

When it works, though, fighting performs well enough. XP, accrued in combat and by smashing up the scenery, is used to purchase skills for your trio of weapons, which you can 'master' by using in battle. Do so and you can feed your mastery to the weapon itself, increasing its overall power. It's one of the game's scant bits of smart design, encouraging experimentation and rewarding you for mixing up inputs, even though you'll likely revert to proven strategies in a tough spot.

The boss fights are the high points both of character and combat design, these screen-filling grotesque creations requiring canny use of your weaponset and associated projectiles. They're enjoyable, too, though that's mostly because they're easy: with fewer enemies onscreen, the camera fixed on the massive demon-thing that's trying to kill you and an array of incoming attacks with which you're almost instantly familiar, the boss fights are far more straightforward than regular combat.

Which perhaps explains why there are so many of them. It's as if the development team belatedly realised how many bum notes it had hit and frantically started cutting the worst of it out of the main game. God knows what got taken out, though, because there's plenty of



KLEI FIGHTERS

Everywhere you look in *Lords Of Shadow 2*, there's something to collect. One trinket leads to a series of challenges, accessed from the Kleidos mirror in an underworld shop run by a diminutive Chupacabras demon. For every four shards you collect, you unlock a set of four combat challenges. Each offers four medals for meeting certain conditions – banning magic use, for instance, or not letting more than 20 seconds pass between kills – with subsequent challenges walled off until you've unlocked a set number of medals. It's a reasonable distraction from the messy campaign, but poorly balanced, with your very first task proving an immediate difficulty spike. The high-pitched cheers from the offscreen Chupacabras, meanwhile, ensures the level of irritation doesn't dip too much.

Boss fights span multiple phases, with unfettered whacking at a monster's face the reward for solving a series of combat puzzles. The opening of this Medusa fight is spent battling tentacles at the arena's rear, for instance

badly designed fat left on *Lords Of Shadows 2*'s bones. But for all its litany of crimes, pacing is the biggest. There might be a half-decent ten-hour game in here somewhere, but instead what we have is stretched beyond breaking point and padded with dreary filler. Halfway through the game, with a mutant infection threatening humanity's existence and a shady group making preparations to summon Satan to conquer the planet, Dracula spends a couple of hours finding Mirror Of Fate fragments because the ghost of his dead son says he needs it to play with his toys. This sojourn to the netherworld hosts the nadir of a game with copious low points: another instafail stealth section in which you must evade Agreus, the goat-headed brother of Pan, as you traverse a garden littered with dead leaves that will alert your pursuer if you step on them. If he catches you, his whirlwind attack sends you back to the start. It's tortuous stuff, but the biggest insult is that you fight him immediately afterwards and it's a cakewalk.

The first *Lords Of Shadow* is remembered as a commendable achievement from a relatively small team working to a comparatively tight budget. Its sequel, by contrast, cannot disguise the resources with which it was made. *Lords Of Shadow 2* is clunky, ugly and deeply misguided. It's a game that sees the lord of the damned as a vehicle for rat-powered linear stealth, and that takes a future-Gothic London setting and then sets the action in tower blocks and sewers. MercurySteam says this will be the final game in the *Lords Of Shadow* saga, and on the evidence of this cluttered, bloated and forgettable mess, it's just as well.

Post Script

Why *Lords Of Shadow 2* fails to live up to its inspirations

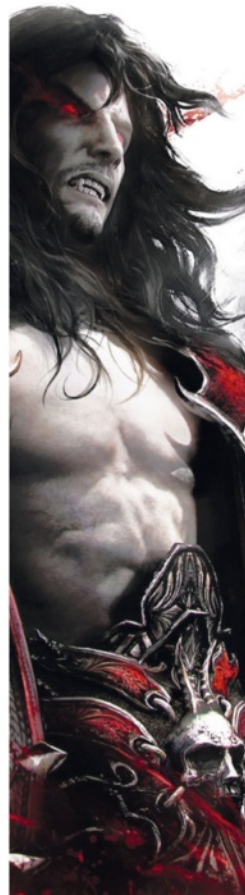
The first *Lords Of Shadow* wore its influences on its gauntleted sleeve. There were the obviously *Shadow Of The Colossus*-inspired boss fights in which you clambered up a titan's arm, held on for dear life as it tried to shake you off, and then stabbed a dagger into a series of glowing runes dotted about its body. The linear platforming was clearly in debt to *Uncharted*, with telegraphed handholds and acrobatic shimmying around crumbling ledges. But the biggest influence was *God Of War*. *Lords Of Shadow*'s combat system borrowed Sony Santa Monica's template, the whip-like Combat Cross a Gothic facsimile of Kratos' Blades Of Chaos. You had an attack that aimed at the enemy in front of you and another that swept around to cater for multiple foes at once. Tap jump after a hit and Belmont, like Kratos, would leap off the ground and take his target with him, the combo continuing ten feet in the air. MercurySteam, however, failed to spot some of the elements that make the *God Of War* series' often woolly, imprecise combat so satisfying, and it has failed to fix those shortcomings in a sequel that falls short not only of its inspirations, but also its predecessor.

The first is the camera. *God Of War* is the work of a developer firmly in cinema's thrall, but its use of a fixed camera is about more than a desire for directorial control over the action. That two-button setup — one for direct attacks, the other for management of wide areas — dictates a design where enemies attack in numbers and from multiple angles. For players to feel in control against these odds, as a hero of Kratos's power should, it's vital that they can see what's going on at all times. If you take a hit from behind in *God Of War*, it's your own fault for not seeing it coming and reacting accordingly. Here, it's often because the clumsy follow camera has got stuck in a corner or spun around in a limp attempt to better present the action.

The popular solution to dodgy thirdperson cameras — something with which even the masters of the genre have traditionally struggled — is the audio cue, an enemy-specific tell that's played loudly in the mix to let you know what's about to happen, whether it's onscreen or not. To its credit, MercurySteam acknowledges this, but its version is every bit as botched as its other systems. Every enemy in the game has an unblockable attack or two, but every single one is advertised by the same sound effect. When you've got half a dozen enemies around you, and only two of them are onscreen, you've no idea which of the remaining four is about to attack, or from where. All you can do is dodge and hope.

The dodge, too, is a failed system, given its lack of invincibility. Kratos' roll, Bayonetta's trademark cartwheel and even *Dark Souls*' forward roll have those critical few frames to help you avoid an incoming attack.

The bulk of the combat is a one-way street, with enemies of all sizes interrupting combos in full flow



As far as their engines are concerned, all that matters is that you saw an attack coming and reacted — whether you really managed to evade the tip of an opponent's sword or fist is immaterial. A little bit of invincibility goes an awfully long way, and its inclusion here would have papered over some of the cracks in *Lords Of Shadow 2*'s combat system. Instead, mistakes — and not those of your own making, but caused by poor audio design and a wonky camera — are heavily punished. Even more heavily than usual, in fact, given that taking damage resets the Focus meter, which is vital for keeping your Void and Chaos magic meters topped up.

Even when you do stay out of trouble and get a combo going, *Lords Of Shadow 2* manages to disappoint. There's little sense of weight to your attacks, and again it's that two-button control setup at fault. Hammer the DualShock's Triangle button for a string of area attacks and you're not landing blows on an enemy, just dealing weightless damage to anything in range. Direct attacks fare better, but even here there's little sense that your blows are truly connecting. There's an animation, a sound effect and a Capcom-style hit pause, but it's next to impossible to stagger even the smallest of enemies. Even when struck by the hard-hitting Chaos Claws, your foes go about their usual business. This removes any sense of reward for opening up a foe's defences, and combined with the odds of taking an unwanted hit from offscreen, kills the combat system's flow. The only way of interrupting an opponent's attack is to take them up into the air with you, but that still leaves you vulnerable to foes on the ground. Aerial combos are brief, too: you'll soon be back on terra firma and back in trouble.

The genre's most vital element of gamefeel is making your blows truly feel like they're connecting, and there are few finer ways of conveying that than by having your attack interrupt an opponent's. One of the reasons that boss fights make for some of *Lords Of Shadows 2*'s very few high points is that the onscreen health bars show that your blows are, in fact, having an effect. But the bulk of the game's combat is a one-way street, with enemies of all shapes and sizes interrupting your full-flow combos even as you're smacking them about the place with a pair of flaming claws.

There is no shame in having obvious influences. Videogames have a rich history of building on what came before. But in doing so, it's vital to examine your inspiration's every facet — finding out what works and, crucially, what doesn't. With a few frames of dodge invincibility, a few more sound samples for audio cues, and having enemies react properly to your attacks, at least one of *Lords Of Shadows 2*'s many flawed systems would have been far more satisfying. ■

Broken Age: Act 1

Tim Schafer's first adventure game in 15 years is, in the most literal sense, fan service. *Broken Age* has been funded by players with fond memories of LucasArts' golden era and built on the promises made to them in what turned out to be a defining, and record-breaking, Kickstarter campaign. The result is that the first chapter of *Broken Age* lives up to its title: an anachronistic mix of tradition and innovation that feels somewhat out of step in a post-*The Walking Dead* world.

But that's entirely the point. This is a game that probably wouldn't exist had it not swerved around any kind of publisher involvement, a return to the sort of point-and-click that fell out of mainstream favour even before *Grim Fandango*, Schafer's prior adventure (and commonly accepted swansong for a genre). But while *Broken Age* might be mechanically predictable for the most part, its tale of rebellion, self-discovery and cowardly lumberjacks is as deliciously off-kilter as any of its forebears.

As in *Day Of The Tentacle*, you juggle more than one protagonist throughout the game, each finding themselves trapped in their own peculiar nightmare. Vella (voiced by Masasa Moyo) has come of age and is to take part in the 14-yearly Maiden's Feast, offering herself up as sacrifice to the great beast Mog Chothra to bring honour to her family. Vella doesn't understand why the fellow residents of Sugar Bunting, a once-proud town of warriors, don't share her feelings about fighting the maiden-gobbling creature instead of feeding it. At least her grandfather's on side.

Elijah Wood's Shay, meanwhile, lives on the incubator vessel Bassa Nostra, a kind of lifeboat that carried him to safety after the death of his home planet. He spends his days under the extremely careful watch of a cossetting parental computer whose sole purpose is to keep him safe. He tries to stave off boredom by rescuing sentient Yarn buddies (knitted for him by the computer) from staged disasters such as ice-cream avalanches and hug attacks, but it's not enough.

Neither Vella nor Shay can relate to the world they've grown up in, and both yearn for escape. By rejecting the accepted norms of their respective existences, they find themselves embarking on two very different adventures. Each is related to the other, but not necessarily in ways you might expect. You can switch between characters at any time, which ensures there's always more than one puzzle to mull over. But the game does a good job of opening its puzzles out into nonlinear triplets as often as possible; *Broken Age* feels supremely confident in its story's worth, so much so that it

Publisher/developer Double Fine
Format PC
Release Out now

Broken Age feels supremely confident in its story's worth, so much so that it hardly ever tries to hold you up

hardly ever tries to hold you up. We only struggled with one puzzle, a problem involving fruit and underwear, but that was down to us trying to be too clever. Genre stalwarts might be disappointed by the lack of challenge (even the placement of objects is mostly local to the relevant puzzle), but the draw of LucasArts' adventures was always their characters, not conundrums, and in this respect *Broken Age* doesn't disappoint. Along the way, you'll encounter a self-deluding cult leader voiced by Jack Black, Wil Wheaton's aforementioned lumberjack, an incredible turn from David Kaufman as a mysterious wolf who appears to have mistaken *Broken Age* for the Wes Anderson project he should have been on, and Gus, given adorable life by Pendleton Ward.

Double Fine drew flack for the all-star cast it assembled for the game — or rather its imagined share of the budget — when it was revealed that *Broken Age* would be released in two parts because the studio needed more time and money to finish it. But the celebs' presence, allied to the quality of writing on display, feels entirely justified. It's a joy to listen to every line (at least the first time), so entering into a dialogue tree never feels like a chore. *Broken Age's* tone feels, for the most part, more subtle than that of *Day Of The Tentacle* or *Monkey Island*, its script closer to the amusing snark of *Full Throttle* and *Grim Fandango*. But that just gives the jokes more headroom. And don't panic, there's still plenty of space for a series of excellent stool gags.

Schafer has expressed reservations about incorporating traditional dialogue trees, but they remained in place due to the promises made to the project's passionate Kickstarter community. The team has tinkered with other areas of the game, however. There's no list of verb actions to choose from for a start, instead replaced by a context-sensitive cursor that handles every interaction for you. It also helps mitigate any long waits for a character to walk from one end of a scene to another by displaying one arrow when hovering over an exit, but then a pair of arrows once clicked. Click again, and you'll instantly appear in the next scene. The two characters' adventures feel subtly different, too, Vella engaging in more conversations and combining more objects, while Shay dabbles in pattern matching and even minigames.

Double Fine's adventure is confident and charming, the studio feeling its way to a comfortable midpoint between the desires of adventure-game fans and its own motivation to move the genre forwards — even if only by a small increment. *Broken Age* is unlikely to convert detractors, then, but for those of us who grew up with Bernard, Ben, Manny et al, it feels like coming home.





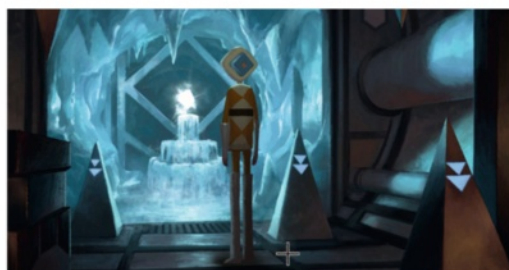
LEFT Shay is well looked after by his AI guardian, but the routine is suffocating. At least he gets to choose which breakfast cereal to eat from a selection that includes Nebulumps and Soyilent Dreams.

BELOW Despite the great voice work, you'll want to keep the colour-coded subtitles on for old time's sake. There's even a retro visual treatment, the option for which is revealed when you change the resolution to 640x480.

BOTTOM Shay's ship mixes inscrutable technology with child-friendly fake controls, which even include a mobile hanging in the cockpit. They're presumably there to stop him from hurting himself



RIGHT Broken Age's conversations are consistently amusing, but also packed with information about the strange worlds Vella and Shay call home. The beautiful visuals are occasionally spoilt during close-ups, however, since every scene is created in a single resolution



Post Script

Tim Schafer, writer, director and Double Fine's CEO

Tim Schafer is the CEO of Double Fine, having made his name in the '90s with his involvement in the first two *Monkey Islands*, *Day Of The Tentacle*, *Full Throttle* and *Grim Fandango*. The past few years have seen him experiment with new forms in *Psychonauts*, *Brütal Legend* and *Stacking*, though, so we ask him how it feels to return to the genre that he helped define.

How was it returning to writing duties, and the point-and-click genre?

I'm always more comfortable in that role, writing all the dialogue, because I'm kind of controlling about story, character tone and stuff like that. I was really familiar with certain things that were going to happen, so it was really interesting working with a team who hadn't made an adventure game before and watching them learn all about them, and how handcrafted and hard to make they are. Every moment in these games is created — it's not like a system that is then expanded over a set of data. With adventure games, every time you pick up an object and talk to somebody that moment has been handcrafted by someone.

Broken Age's puzzles are slickly designed. Did you consciously try to avoid the kind of head-scratching associated with the genre in the '90s?

We definitely tried to remove some of the crazier, really illogical and impenetrable puzzles from the old days. The monkey wrench puzzle in *Monkey Island 2: LeChuck's Revenge* seemed to make complete sense to us at the time when we were sitting giggling in Ron [Gilbert]'s office about it. But then when I played the special edition, I was like, 'How did we ever expect anyone to get this?' Especially someone who doesn't use the term 'monkey wrench' — someone who might call it a spanner, for example. Just a few clues would have made that more apparent. But there's a contingent of our backers who are like, 'That's the best. I worked on that all night. I love that!' Unfortunately, you can't tune a game to everybody, and we really wanted this game to have a flow to it and play in a way that everyone could finish it. I think that's going to make it maybe go faster than a game that kept you stuck for three days on one puzzle. But I also hope people enjoy the journey, and it's not necessarily about banging your head against a wall, but about the interplay between the characters, the story and the puzzles.

Some critics expressed concerns that Broken Age's interface is tablet-focused, and limiting as a result. What's your response to that?

Our response is we've changed it. We [were] in a beta with our backers and that's exactly the kind of stuff that



"You have a talking spoon and there are poop jokes. That's what life is all about: tragedy and poop jokes"



we wanted to hear. We were really trying to make the best interface and continue the streamlining we'd done in the old adventure games to have more of the screen filled with beautiful art rather than UI, and so it got simpler and simpler as we went along. Dragging verbs around was simply what I had been used to with other games, and a lot of our PC players wanted to click on an item then click on the world.

Stool jokes aside, the story feels very mature.

I always liked Kurt Vonnegut. His books are very funny, but they're aware of the range of human experience and how it can be very tragic and sad. That doesn't mean it's any less enjoyable overall. In some ways, being aware of the hardness of life is what makes the sweet moments more sweet, and so I think that's been present in everything I've done. There's a bittersweet element to *Full Throttle*, for sure, and that's how it ends. And *Grim Fandango* was a lot about death and regret and choices like that. In *Psychonauts*, it's more hidden in the levels, but since you're in people's minds, you could really get in there and see their sadness and fears. They're not meant to be super-dark stories; they're just about life and what people go through. I think *Broken Age* is a lot like those, but then, when you get into the gameplay of it, you have a talking spoon and there are poop jokes. That's what life is all about: tragedy and poop jokes.

Are you disappointed that half of those poop jokes have had to be held back for the second episode?

At first I was kind of resistant to [splitting the game in two], because I imagined the game as a whole, and it's frustrating to see some of the reviews say, 'It's good, but it's short; it feels like half of what the game should be,' and I'm like, 'Yes, exactly. That's exactly what it should feel like.' But by the time we were done and I saw that last cutscene all polished, and the way it felt after going through this adventure with these people, I was like, 'Man, that is a great place to end,' because it brings up so many questions — you just thought you knew what was going on and then all of a sudden this new raft of questions come up. And it's not like a TV series where you know we're going to drag out answering those questions for the next five years. We're going to answer them all in the next instalment. I think in some ways it's nice that there's at least one point where everybody has to stop and wait and think about what they just played before they rush through, because otherwise a lot of people just binge play games like this, and it's hard to force people to stop. If you're doing your job, they're kind of hooked in and they don't want to stop. But you also wish they'd savour it, because it took you so damn long to make! ■

TOTAL FILM

Now fully interactive on your iPad



Download
2 FREE
issues!*

Interactive pages • Full screen trailers
Exclusive extra content



Search for 'Total Film' in the App Store
www.totalfilm.com/newsstand

* Download two free issues with a no obligation subscription. Offer applies to new subscribers only.
iPad is a trademark of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc.

Jazzpunk

We don't laugh at games very often, and it's rarely got much to do with intent when we do. Moments of videogame comedy tend to come more by accident than design, emerging either through play or cracks in the code. Well-crafted jokes are a rare thing indeed, and it's an even rarer beast that follows one winning gag with another, and then another. *Jazzpunk* is such a game. From its remarkable, Saul Bass-style animated opening to, some three hours later, one of the most visceral closing credit sequences in history, developer Necrophone Games barely stops to let you catch your breath between belly laughs. *Jazzpunk* is hilarious, its script almost faultless, its pace relentless.

While the visual style most readily recalls the work of *Thirty Flights Of Loving* developer Blendo Games (whose Brendon Chung is thanked in the end credits), *Jazzpunk*'s real inspirations are spoof comedies such as *Airplane!*, *Hot Shots!* Part Deux and *Austin Powers*. Setting foot in a noirish, robot-inhabited alternate-universe Japan in the year 1959b, you play as Polyblank, an agent carrying out acts of espionage at the behest of a pitch-shifted cockney director operating out of a Tube carriage repurposed as an office. You enter missions by taking a prescription medicine aptly named Missionoyl – the label on the bottle advising that you “take one capsule every mission, or until reality is sufficiently augmented” – and the action begins, the drug's effects teleporting you to your destination within seconds.

Each mission has just one central objective, but the surrounding area is full of NPCs milling about, waiting to dish out sidequests and gags. In the opening level, you can walk straight forward into the Soviet consulate and get down to business immediately – your target secured from an automated phone service that offers direct lines to both the Kremlin and Satan in addition to a cartridge full of enemy intelligence – but doing so would mean missing out on the treats that line the town square's perimeter. There's the saxophonist busker who tells you he's got some gigs, “almost a terabyte”. A robo-prostitute offers to recalibrate your sensor for a dollar, then asks if she's Turing you on. There are people in need of help, too, such as the frog in a pink mohawk that's trying to hack the Wi-Fi of a local Starbux and needs you to retrieve his AR data visor from across the street with a quick game of Frogger. One passer-by gives you a device with which to shoot pigeons from the sky, after which you're splatted with droppings that are cleared from the screen with windscreen wipers.

Most of these NPCs appear only once and are all the better for it, though there are exceptions. A hobo seems to follow you wherever you go, spouting government paranoia, incoherent babble and endless robot puns. His appearances tend to end with him urging you to look behind you, at which point he scarpers, backed by the appropriate cartoon sound effect. Character models are

Publisher/developer Necrophone
Format PC
Release Out now

Jazzpunk's real inspirations are spoof comedies such as *Airplane!*, *Hot Shots!* Part Deux and *Austin Powers*



SHOTGUN WEDDING

Jazzpunk mostly leaves you to explore, so its sole flashing arrow proves too conspicuous to ignore. It leads to a wedding cake, which flips open to reveal a monitor display, transporting you to one of *Jazzpunk*'s best distractions. Wedding Qake is a multiplayer arena shooter that lives up to its name: champagne bottles become shotguns and wedding cakes are miniguns, while a glass of fizz brings a cry of “Toast!” and a brief speed boost. The bots – dressed as brides, grooms and vicars – make for tough opposition. You'll want to play again, and you can straight from the menu.

reused, too, including the goons in beige raincoats who block your path as you escape from a downtown sushi restaurant. As you clear the way with melee strikes, they emit the sound of pins being knocked down by a bowling ball. One of the last you'll face is a pin wearing a hat; another shouts “Bowling joke” as you approach; another begs for mercy. (“Please don't hurt me,” he implores. “I'm a sensitive man.”) A level set at a luxury beachfront resort, meanwhile, is dotted with dumb-as-they-come slacker guys and valley girls, while several male tourists ape Johnny Depp's turn in *Fear And Loathing In Las Vegas* – hat, Hawaiian shirt, and a cigarette holder dangling from each mouthless face.

These familiar sights bring consistency to a varied world, which spans the town plaza, seedy downtown and seaside resort as well as a penthouse, a neon-flecked city and a network of skyscraper rooftops. There are plenty of surprises along the way, some of which take you out of the gameworld entirely (see ‘Shotgun wedding’). Changes of scenery help Necrophone ensure its simple set of mechanics – there's a single action button, a jump you'll rarely need, and a button that cycles through your inventory – doesn't grow stale. Items are automatically, invisibly discarded the second they've finished serving a purpose, a smart decision from a developer aware there's nothing so pace-breaking as rummaging through a busy inventory.

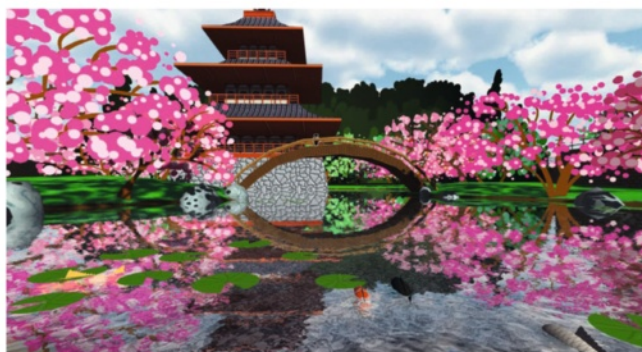
Thankfully, this is much more than a simple exercise in clicking through NPC dialogue trees and chuckling at the results. Necrophone knows it's making a game, and ensures that it frequently sends up its host medium in the midst of all the sight gags and tech puns, bending its own mechanical rules to do so. There are nods to *Wave Race*, *Virtual Boy*, *Duck Hunt* and more besides, while *Street Fighter II*'s influence is felt in a highly one-sided firstperson punch-up and a standout section in which you guide the dotted line of Agent Polyblank's voyage across a matinee-movie world map. Late on, *Jazzpunk* perhaps leans on game parodies a little too heavily, but you won't mind at all. By this point, your heart has long since been won.

Jazzpunk's greatest success, though, is how its disparate parts all fit together. Its inspirations are, after all, much more finely targeted. *Airplane!* sends up the disaster flick and *Hot Shots!* spoofs the war movie, while *Austin Powers* goes even further, narrowing its sights to a single series. Gaming, however, is a far broader church, and it's some achievement that Necrophone's game spans so many locations, styles, genres and eras with barely a single gag failing to hit the mark. Games are so rarely funny by design, but *Jazzpunk* is much more than a funny videogame. It's a comedy, and one that wouldn't be possible – or anywhere near as powerful – in any other medium.

RIGHT The director's role is more than mere quest-giver: he plays a critical part in the game's climax. The jokes continue to be seeded through the credits, with nods to both a Prosthetics Wrangler and Assistant Christmas Card Smuggler.

BELOW This late-game goon will quickly regret insisting we fix him something for breakfast. His subsequent lines – "I have fourth-degree burns" and "my face" – call back to *Jazzpunk*'s opening level.

BOTTOM Each mission ends in the grounds of a temple, though this seems more of an artist's decision than a designer's. One task later – feeding bread to koi, say – and you're back in the director's office



ABOVE When the scene demands it, you're given a pointing hand that looks like it was borrowed from Alfred E Neuman. You'll turn clock hands, scratch records and play Twister, the latter activity throwing up a cracking payoff

Nidhogg

Street Fighter II, Super Smash Bros, GoldenEye 007: some games are indelibly written into history for their competitive multiplayer. To play them is to have battle upon battle seared onto your mind, branded there by the white-hot thrill of matching wits and reflexes against your peers. Prepare to add *Nidhogg* to the list.

Not that *Nidhogg*'s seesawing hyperkinetic fencing matches bear much similarity to those couch classics in style or input methods. This is the multiplayer conceit triple filtered until all that is left is two eye-wateringly neon stick figures holding out two pristine white swords, each fighter with one objective: get to the final screen. But to make progress from one segment of the five-area-wide levels to the next, you need priority, as represented by a giant Go arrow. And the only way to get it is to be the most recent player to score a kill.

To start with, no one has the advantage. But as soon as the first gout of pixellated blood wets the ground, a deadly and hilarious battle of tug-of-war ensues as each player tries to steal priority and push the battle to their end zone. The simple goal makes the game: every sparring match is in service to a higher aim, each push imbued with purpose and stomach-churning risk. It transforms *Nidhogg* into more than just a lightning-fast deathmatch. In fact, it is perfectly valid to skewer your opponent once and spend the rest of your time legging it to the finish. It's just that you're going to need to get good at fighting to survive long enough to get there.

That means crossing swords, and this too is governed by elegant rules. Rule one: let the pointy end of a sabre touch you anywhere and you're dead, your corpse disintegrating into a shower of level-staining pixels. You'll be spawned back in your foe's path in seconds, but those are precious seconds where they are pressing their advantage.

And you'll be amazed at what can be derived from such a simple control scheme. One button jumps, another attacks, and the arrow keys (or a stick, since *Nidhogg* yearns to be played with a pad) move you. But with each input sensitive to context, a broad spectrum of actions is at your disposal. Run forward and hit down to enter a roll that might carry you past your sparring partner and might leave you ignominiously impaled on a lowered blade. Jump and press attack for a quick disarming divekick to make Viewtiful Joe weep. Hold up to position your sword for a deathly fast, but easily blocked, throw.

This being a fencing game, however, most attacks are lunges, which buy you range at the cost of leaving you open as you pull your blade back. Timing is everything. Well, not quite everything: posture also counts. Your sword is held at one of

Publisher/developer Messhof
Format PC
Release Out now

As soon as the first gout of pixellated blood wets the ground, a deadly and hilarious tug-of-war ensues



THE WAITING GAME

With developer Mark Essen torn between freelancing, teaching and fine-tuning *Nidhogg*'s feel, it's been an agonisingly long wait for the IGF 2011 Nuovo winner and irregular event favourite to see a widespread release. But now the core game has been deemed ready for general consumption, there seems to be greater momentum behind it, with Linux and OS X versions announced days after the PC release, alongside hints of a console port. Essen also talks of wanting to keep the updates coming, speaking to Venus Patrol about ideas for a new fighter that incorporates some moves cut from the game in order to refine the animation and state set, such as a Yoshi-like ground pound and the crane kick from Karate Kid.

three levels — hip, chest or eye height — switched between with taps of up or down. Attack at the same height as your foe's foil and you'll be deflected, a scrape of metal your only reward. Find an opening first and the match's impetus is yours.

The disarm is perhaps the clearest evidence of designer Mark Essen's delicate touch, though. Flick your sword's position to match an incoming attack at just the right moment and you'll swipe the blade from your opponent's hands with a whoop. It's hard to do purposefully, but immensely rewarding. And while an unarmed enemy is far from defenceless — *Nidhogg* is made for last-second comebacks — the surprise should have given you the upper hand.

The rest of the package is minimalist. There are just four stages, each one comprised of two areas mirrored around a central segment. Castle is of the *Prince Of Persia* school of ancient architecture, all cavernous grey block halls and death pits. Mines has conveyor belts and tunnel chokepoints too claustrophobic to chuck a sword around in. Clouds is the weakest of the bunch, its central screen bright enough to render swords and even players invisible, although dissipating cloud bridges add new tension to Mexican standoffs. Then there's Wilds. It's a treasure trove of tiered platforms, long grass to conceal yourself in and gorgeous pixel foliage. Every stage is primarily rendered in dark, muted hues so as to contrast against the retina-searing player colours and gore, with an animated background that puts us in mind of Peter Gabriel's Sledgehammer video. We wouldn't exactly call it easy on the eyes, but it's distinctive even among the pixel art crowd.

Even despite the limited variety, local multiplayer is blissfully easy to lose hours to. The same can't be said for online matches, which are hampered by sporadic disconnects and varying degrees of lag, the latter a real problem when success is measured in fractions of a second. The chat is less ambiguously poor, unable to deal with long messages and cursed with a confusing font. Let your sword do the talking.

And while multiplayer is evidently the *raison d'être* of *Nidhogg*, there is a time attack singleplayer mode to attempt, where you rip through matches as quickly as possible against AI swordsmen. Sadly, the bots are prone to stupid exploits, lingering on vanishing clouds or tumbling into pits, but they do a decent job of prepping you for real opponents.

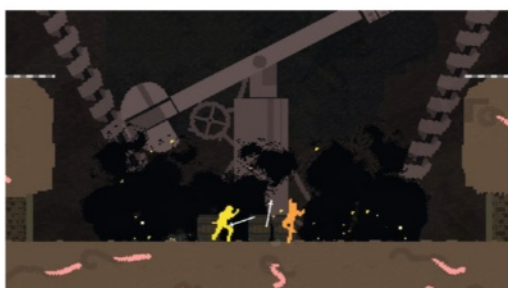
Still, *Nidhogg* is not about lengthy stage lists, improvable online systems, fussy control mapping or AI. *Nidhogg* is about the purity of two friends on a couch duking it out as Daedalus's moody dynamic electronica frames acrobatic displays of wits and reflexes. In that sense, it has no equal.



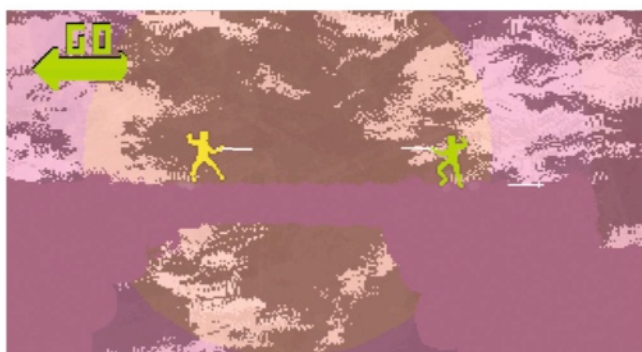
LEFT Castle is designed with these natural chokepoints. They often concentrate the fighting and thus end up daubed liberally in pixel blood before a decisive escape to the next area is eventually made.

BELOW You'll never play a match against more than one opponent – *Nidhogg* is chaotic enough with just two combatants – but there's a tournament mode to cater for a party of up to eight fencers.

BOTTOM The divekick is versatile, used to bypass adversaries, to misdirect, to transition into rolls or runs, or as a way to deprive your foe of a sword. But the mark of a good fighting game is a balanced moveset, and *Nidhogg* offers many ways to counter an incoming foot



ABOVE The floor quickly becomes littered with lost epees. But *Nidhogg* pays fond homage to swashbuckling movies of yore, allowing players to fluidly rearm themselves if they roll, cartwheel or crouch over a blade



Donkey Kong Country: Tropical Freeze

Assuming that Mario is the gear that makes his worlds tick with clockwork precision, Donkey Kong is the proverbial spanner in the works. His arrival is the catalyst for a level to start crumbling apart, his thumping entrance enough to dislodge everything that holds these environments together. And on the rare occasions that objects don't dismantle themselves as he approaches, DK will slam his mighty simian fists onto platforms to flip them, or roll up into a furry wrecking ball to smash through flimsy obstructions. The joy of most platformers comes from being in control, but *Tropical Freeze* is at its most potent when you're out of it.

Part obstacle course, part demolition derby, the stages are a curious paradox, at once precisely crafted and wildly chaotic. And their set-pieces are, at times, expertly orchestrated. One stage sees you attempting to escape the clutches of a giant octopus while an advancing wave of ink threatens to engulf you, while another has you squeezing a rocket barrel into a narrow gap inside a giant rolling Edam. The traditional minecart stage is given an invigorating twist when DK is thrown from his ride, landing on a piece of wood shaped by buzzsaw blades into a substitute boat as you speed in and out of a rain-lashed sawmill.

These moments are choreographed with the antic style of a Jackie Chan fight sequence, Retro Studios finding a similar sweet spot where slapstick chaos and immaculate timing meet. Of course, the spectacle is reliant on you hitting your marks, and with many moving parts to consider, the cues can be easy to miss. So busy is the action and so frequent are the distractions that occasionally you'll perish without knowing how. You'll need to possess preternatural reactions or be capable of clairvoyance to pass some sections first time, since platforms collapse without warning and leaps of faith find patrolling enemies waiting to spoil your landing. *Tropical Freeze's* challenge is stern but reasonable for the most part, yet there are moments of frustratingly cheap design.

It's a shade tougher than its predecessor, though it's also more forgiving. Lives are plentiful enough that most players will never see the Game Over screen, and you can equip up to three power-ups per stage, including a balloon that rescues you from a fatal fall and a banana juice potion that nullifies damage from the first hit you take. Minecarts and rocket barrels can now survive an extra collision, while each of your three partners can trigger a smart bomb, earning you extra lives, hearts or coins. Losing a partner is especially painful, though. Not only will you lose the extra air time you gain with Dixie or Diddy Kong – or the ability to safely bounce on horned enemies that comes with Cranky's pogo-like cane – but you'll be able to take only two shots before dying.

Publisher Nintendo
Developer Retro Studios
Format Wii U
Release Out now (JP), February 21 (NA, EU)

Tropical Freeze's challenge is stern but reasonable, yet there are moments of frustratingly cheap design

The lack of a Super Guide equivalent serves to highlight the difference in mentality between DK and Mario. Fail in the Mushroom Kingdom and you can call on the White Tanooki Suit to help you reach the next stage. If you're struggling here, you'll simply have to persevere. Two very different kinds of aesthetic pleasure are your impetus to do so. There's the satisfaction of a smooth, flowing run, where you emerge from these disintegrating gauntlets without so much as a strand of DK's exquisitely modelled fur out of place. It's not so much the joy of watching a graceful gymnast in action, but the knife-edge tension of witnessing a stuntman performing death-defying feats. Beyond that, there's the simple desire to see what visual treats are in store. Retro has always been one of Nintendo's most technically capable partners and this is a handsome game indeed, its environments alive with colour and detail even as its stages progress with the mechanical rigidity of a theme-park ride. A rhythmic safari level sees platforms dance and sway to the beat of David Wise's excellent soundtrack, while a swim through abyssal ruins sees translucent tendrils draped across the screen and arcane mechanisms illuminating the darkness as DK corkscrews past. The camera, too, is unusually restless: it's a side-scroller no longer by the time barrels are firing you into the screen, and one minecart ride offers a selection of rails to jump between from a top-down view.

Some of *Tropical Freeze's* simpler pleasures are dulled by familiarity. When it's not being quite so slavish to the ideas of its 16bit antecedents, however, it sings, such as in the factory where fruit-pulping blades spit up temporary platforms, or the joyous bounce through a level comprised almost exclusively of luridly coloured jelly cubes. The Snowmads – Viking penguins, walruses and owls – are a more characterful enemy than the Kremplings, while the bosses are beautifully animated and, with one frustrating exception, offer a pleasingly firm challenge. Those who found *3D World's* later stages a test, however, may wish *Tropical Freeze's* bosses still subscribed to the three-strikes rule.

There's a tactility that was missing from *Donkey Kong Country Returns*, though *Tropical Freeze* lacks the physicality of *Jungle Beat* and its bongo controls, which are still a closer match for the protagonist's abilities. EAD Tokyo captured the ape's brute strength but also the curious grace of his movements, which carried a certain laid-back elegance when strung together. Here he's an unstoppable force, a runaway train whose momentum can be tricky to arrest. During *Tropical Freeze's* most exacting sequences, you may yearn for Mario's reliability, but the bludgeoning force of Retro's presentation is enough to carry a powerful, if traditional, platformer over the finish line.





ABOVE Scorch 'N' Torch's raging fires make for one of the most visually striking stages, while the hazards are a little out of the ordinary, too. Leaping between vines can be tricky when half of them are aflame



TOP Happily, you won't need to pause to blow out dandelion clocks this time around. Rolls through dried grass and leaf piles are a better fit for DK's animal aggression, and don't halt the natural flow of your movement.

ABOVE Collect all the KONG letters on every stage in a world and you'll unlock K-stages, which host fierce challenges. A perfect run on World 2's secret stage, Bopopolis, is certainly something to behold.

LEFT Partners are useful on your first few runs through a level, but it's worth learning to cope without them for Time Attack mode. You can now upload your personal best times and replays to online leaderboards, or view those of the top players for inspiration

The Banner Saga

Gunnulf is dead. His body lies twisted and broken at the bottom of a snowy cliff, the wreckage of a precious supply cart scattered about his still form. The worst part? It was our hubris that got him killed. We assumed that the Varl warrior – a race of horned giants, each one a titan on the battlefield – could easily haul an escaping wagon back from the precipice if we bought him the time to do it. We looked at the list of options beneath the event description and chose the one that matched our theory. We could not have been more wrong.

So when we say that your decisions feel like they matter in *The Banner Saga*, that's no overstatement. Stoic's Viking-themed quest may not quite go to the extent of dishing out permadeath as an automatic consequence for falling in battle, but it's still as unyielding as permafrost, its text trees leading to losses that bite as deep as any Nordic winter. Such dilemmas are an exhilarating shock to the system after years of binary moral decisions in games, the story's palette of greys only made harder to distinguish against a backdrop blanketed in pure white snow as you're driven onwards by ancient obsidian enemies.

That story has its roots in refugeeism and the hardships of war, but it's embroidered with myth, dealing in long-dead gods, the misbehaving sun, and a relentless mechanoid force called the Dredge, who have recovered their strength after a war aeons ago. There's a lot of lore to absorb, plus a large cast, and the writing can creak like sheet ice under the weight of it all. There are also rare times when the designers' needs intrude on your agency – though like *The Walking Dead*, you'll feel these more on a second playthrough. On your first run, you'll likely be too entranced to notice either, the saga deriving significant emotional weight by mainly focusing on the plights of two camps. One is a political powder keg, with a haughty prince rubbing up against a Varl warrior promoted to leadership by the death of his kin. The other is led by Rook, a family man who inherits a village to care for early in the tale and then slowly gathers men-at-arms to his banner. Each caravan also accumulates an array of named warriors, most far more nuanced than their tired fantasy genre peers.

Like the many-threaded story, the game itself is a braiding together of strands. One sees your camps roaming the countryside, each troupe portrayed side-on as the beautiful and intricately painted world parallax scrolls by like a HD update of the Bayeux Tapestry. Your task is to manage your party's supplies and morale, all the while beset by a parade of brilliantly cruel choices. Do you give an apparently starving group a home in your caravan, knowing full well that they might be bandits, but condemning them to starve if they're honest? Do you get involved in preventing injustice, potentially taking on the burden of yet more hungry

Publisher Stoic
Developer In-house
Format PC
Release Out now

Stoic's quest is as unyielding as permafrost, its text trees leading to losses that bite as deep as any Nordic winter

mouths to feed? Nothing is clear cut. Even apparently trivial decisions, such as setting up camp for a day or two to boost the wilting esprit de corps, start to prey on your mind when the Dredge are nipping at your heels and you're just five meals away from mass starvation.

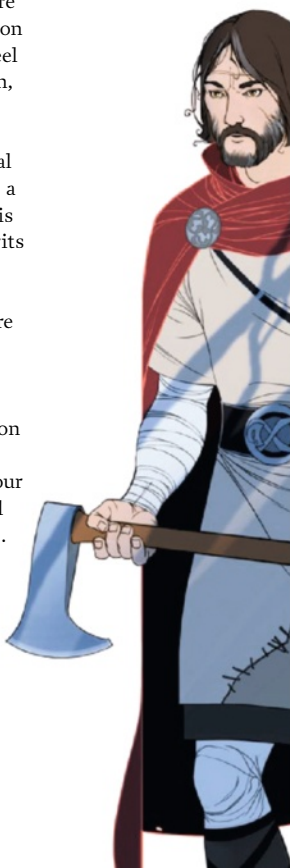
Since there are few right answers and Viking blood runs hot, you'll make plenty of enemies in your quest for survival. When the fighting starts, it's turn based, playing out on square grids with a selection of your vanguard rendered in beautifully animated cartoon form. The stats list looks daunting at first, but the basics are simpler than a glance suggests, with the key information displayed on each unit's banner. The Strength bar encapsulates both its hitting power and hit points, meaning damaged units become less effective killers. The Armour bar naturally reduces damage taken, but the twist is that attacks to break armour don't deal normal damage. And so skirmishes become another delicate balance, each one an exercise in reducing your opposition's defences enough to get a few good hits in without letting your own units be whittled down.

Deft systems and the interlinks between travel and fighting keep the easy-to-learn combat satisfying hours into the adventure. Everyone has a stat called Willpower, for instance, which fuels overstretching. You can use it to boost either kind of attack damage, power the cast's array of special abilities and to move farther than normal. Judicious use can turn the tide of battle, but Willpower is directly tied to your party's morale. You'll feel its loss if you don't cater for happiness.

Wars, meanwhile, engage your entire caravan, comparing them to the amassed enemies and then letting you pick your approach in battle. Charging into the dangerous heart of combat yourself saves lives, but heroes who fall under your command fight at reduced effectiveness until they recuperate, which takes days.

And you'll soon start setting up devastating chain reactions. Rook's special ability, for instance, marks a target for every ally in range to attack at once, while stripping a Dredge of enough armour in a turn will have knock-on effects for units around it. There's more than enough depth in these systems to last beyond the ample runtime – a trilogy is planned, with saves carrying over à la *Mass Effect* – though we did start to wish that some of the ingenuity that's gone into the dialogue options had also been applied to varied combat objectives, since fights rarely involve more than slaying all before you.

Bold and distinctive, *The Banner Saga* is nonetheless the work of artisans. Few brand-new teams of three could so seamlessly weave together moral quandaries, weighty strategy and a sumptuous art style to build a world as rich as this. It's a stern, harsh game – even a gruelling one at times – but that just makes each little victory you snatch one to savour.

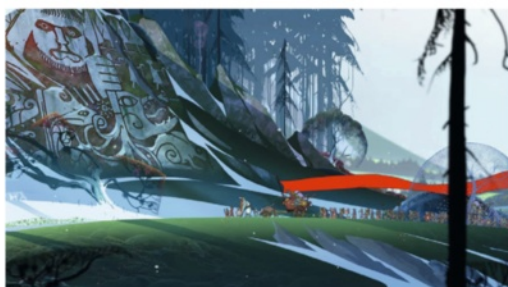




ABOVE Rook's daughter, Alette, is far from a coward, offering deadly ranged attacks on the battlefield. She is, however, an innocent, and would prefer not to hurt Varls or humans. You'll have to decide whether you can afford her morals when the going gets rough.

LEFT Battles require an eye for crowd control, but despite the lush art and occasional setup variation, the grid is rarely more than just a bunch of squares. Genre-standard terrain effects are notably absent

BELOW Decision making is rarely easy in *The Banner Saga*. Some paths offer new characters or renown, but others thin your party. Telling which is which is testing



ABOVE Renown is the game's catch-all resource, used to buy supplies, items and upgrades. Neglect the first and your caravan will starve; neglect the latter two and you'll have to work harder to protect it. It's a tough balance



Octodad: Dadliest Catch

The gag's a decent one: Octodad is an octopus living among humans, who accept him as their own so long as he's wearing a suit. Irrespective of his suckered arms and suspiciously poor coordination, our hero lives a reasonable life, having somehow taken a wife and spawned two kids. Best not to ask how that last bit came about, but then *Octodad: Dadliest Catch* asks you to overlook an awful lot more than plot holes.

Octodad's controls are best thought of as like Bennett Foddy's slapstick athletics game *QWOP* in a 3D space. Squeezing either trigger lifts the corresponding leg, which you manipulate with the left stick. When standing still, the left stick moves your right arm, the right stick raises and lowers it, and RB grabs the nearest object. It's simple in theory, but being an invertebrate, Octodad is at the constant mercy of his limbs. Walk in long strides and his head and body lurch around with the shifting momentum. He doesn't grab and push door handles so much as tether himself to them and hope. It's clear that our paternal cephalopod is built neither for speed nor grace, so it's all the more baffling that developer Young Horses soon starts asking for both.

Things start out well enough, with the first half of the game's two-hour runtime making great hay of its

Publisher/developer Young Horses
Format PC (version tested), PS4
Release Out now (PC), March (PS4)



BRAY OF THE TENTACLE

Octodad's comedy isn't solely physical in nature, with some smart writing tickling the funny bone when you aren't laying waste to your surroundings. Your wife's blissful ignorance of her partner's true nature is regularly played for laughs, while family members and NPCs offer up pithy quips as you clumsily go about your duties. The grocery store level is packed with in-jokes. There's Total Biscuits, Pewdie Pie and Tiny & Big's Diapers, plus a two-for-one crockery deal marvellously dubbed Stanley's Pair O'Bowls.

physical comedy. You'll get dressed for your wedding, flinging gifts to dislodge a tie from a stained-glass window, then flop your way to your waiting bride down an aisle cruelly dotted with banana skins. A stint as the doting father sees you spill half a container of milk on the walk from the kitchen to your daughter's waiting cup. Everything goes horribly wrong at every turn, of course, but it's supposed to. By wrestling with controls that are cumbersome by design, you just about make it through, and have a fine old time of it.

Then it all falls apart. An aquarium visit involves a tortuous series of minigames in an old-fashioned amusement arcade. *Octodad's* controls are meant to be imprecise, so a demand that we throw six basketballs through a small hoop sparks ten minutes of wearying frustration. Then comes stealth, of all things, and by the end you're tiptoeing across rafters that break under heavy footsteps and dodging projectiles thrown by the antagonist, a chef of unidentifiably foreign origin who accosts you at the end of missions for a scripted chase where a single mistake means a restart.

It's hard to tell quite how things went so wrong. Lacking the confidence to revel in its protagonist's clumsiness for the entire runtime, Young Horses takes *Octodad's* comical core mechanics to places they have no right to go. *QWOP*, remember, only gave you an athletics track, and with good reason.

The game is at its best when you're muddling your way through domestic life. Just getting the lawnmower out is an ordeal, as you clear the shed of sporting equipment, which then poses hazards as you try to cut the grass



The Castle Doctrine

Jason Rohrer's "weird, hard and disturbing" MMOG centres on the American legal principle that permits the use of lethal force against intruders to your home. In *The Castle Doctrine*, you secure your own house, defending it from fellow players as best you can, while also invading their homes to take their money.

As you might expect from Rohrer, the game's origins lie close to his heart. His childhood featured a father anxious to fulfil the protector remit. He's lived in a rough neighbourhood. While these inform its premise, *The Castle Doctrine* is a game about constructing and solving puzzles based on logic and psychology.

You start with an empty house and a nuclear family in which you're the alpha male in charge of protecting your homestead. You have \$2,000 to spend on resources – walls, wiring, doors, triggers and so on – for creating traps and protecting any remaining wealth.

There are two caveats: you must be able to reach your own vault without using tools (proving the puzzle solvable) and your family must have an uninterrupted passage to the exit. Money to improve your defences or just to progress up the leaderboard comes from bounties dropped by those your house kills and from successfully robbing other players. The bounties increase as players

This early experimental design uses a combination of unpowered traps, commit gates and electric floor tiles. The traps are intended to pull the intruder away from our vault and straight into the jaws of death

Publisher/developer Jason Rohrer
Format PC
Release Out now

Name	Search	Filter
Donald Joseph Woods	\$150000	203
Paul Richard Collins	\$100000	92
Jason Edwin Acosta	\$50000	131
Edward William Frye	\$40000	22
Jeremy Quinn Brooks	\$31000	33
Andrew Robert Gleaves	\$31000	7
Thomas John Costaneda	\$29000	40
Kirk Stephen Lomas	\$21000	17

CLUBBED OUT

In a thematic promotional giveaway, Rohrer promised to reward early-access players for their looting with real cash. A total of \$3,000 was at stake, but the real eyebrow-raisers were the top eight prizes. They began at low-value gun store vouchers, moved up to door-reinforcement gadgets and culminated in a grand prize where the richest player would receive Rohrer's own club, bought for defending his family against vicious dog attacks.

manage to successfully rob vaults or kill family members, too. Killing someone's wife will give you half the house's money. The other half is found in the vault.

With no tutorial, the learning curve is steep. Coupled with the threat of permadeath when testing your creations, this can result in intense frustration as you fall to traps you didn't fully understand or predict. Whether you enjoy the game or ragequit will depend entirely on how much you like building, tweaking and investigating the systems. On persevering, logically inclined players may create fiendishly clever security arrangements, while fans of mind games can explore the protection basic psychology offers.

We constructed a 'commit gate' – an electrified floor tile that activates as a thief passes, locking them into a robbery – near our house's entrance, but it wasn't powered. It was a cheap deterrent. The next morning, watching the security tapes the game records, we saw 14 intruders pull out rather than proceed.









The Castle Doctrine is a curious game about exploiting systems and psychology. The discussions surrounding it deal in politics and morality, because it's a game about Rohrer's response to a controversial real-world issue. Yet *The Castle Doctrine*'s notoriety ends up feeling like another fakeout – a disconnected conceptual commit gate at the entrance of an often-frustrating sandbox puzzler.

6



create

Lifting the lid on the art, science and business of making games

This issue's **People, Places, Things** opens on p108 with Edmund McMillen  telling us how a childhood spent writing *Castlevania* fan fiction and drawing *Super Mario Bros* levels led to success with *Super Meat Boy* and *The Binding Of Isaac*. On p110 we journey to *Far Cry 2*'s  Leboa-Sako and Bowa-Seko for **Places** and discover the most hostile world ever created for a North American blockbuster, where rusted weapons, broken cars and malaria conspire to make your visit a short one. We put on Sam Fisher's goggles  in **Things** on p112 and explore how those three lights became the face of a franchise, and how the headgear has evolved since *Splinter Cell*'s debut in 2002. Lionhead  opens its doors for our **Studio Profile** on p114 as we visit the team while it completes work on *Fable Anniversary*, and on p118 **The Making Of... Batman**  goes behind the scenes at Specular Interactive to look into the micro budgets and economic design decisions behind a modern arcade game. As always, our columnists round off the issue, with designer **Tadhg Kelly**  (p122) discussing failure and denial, and the way absolute brutal honesty can keep an otherwise doomed project on track. **Clint Hocking**  (p124) takes on the tricky problem of what to do with unspent bullets when a player reloads, and how that simple question can lead a developer to question the norms upon which modern game design are built. Finally, **James Leach**  (p126) pays close attention to the invasion of celebrity voices in videogames, and doesn't approve of what he hears.



www.edge-online.com
More development news,
analysis and reviews

The future of *Fable* rests in the hands of a Lionhead that has undergone significant change. The studio's new management discusses *Fable Legends* and an online-focused future on p114



CREATE
PEOPLE, PLACES, THINGS

People

EDMUND MCMILLEN

One half of Team Meat describes his part in the indie revolution



McMillen is currently working on cat lady simulator *Mewgenics*, and due this year is *The Binding Of Isaac: Rebirth*, a remake of the original for Vita, PS4 and Steam

Super Meat Boy launched on Xbox Live Arcade some 18 months before the award-winning Sundance documentary Indie Game: The Movie supercharged the profile of its artist and designer, **Edmund McMillen**. But it wasn't until the filmmakers told the story of the game's development – the hardships of development on the poverty line, the anxiety of a game's launch, and the wash of happiness that follows success – that McMillen's friends and family began to truly understand his vocation. "Even after the game was a success, my mother would bring me job advertisements for roles at larger videogame companies," he says. "She still saw me as a struggling artist; I was the guy who played games all day and made no money. But after the movie came out, people began to understand. They didn't see me as someone doing this to land a job at EA."

As well as being better understood by those around him, there have been other, less welcome side effects from his debut on the silver screen. "I regularly have people approach me to tell me how they've quit their successful job to become an indie game developer," he says. "I'm happy that the film inspired people, but I don't like the feeling that I've perpetuated a myth that people can get rich making games. *Super Meat Boy* wasn't about getting rich. If the game had failed, I'd still be in my old one-bedroom apartment doing the same thing, because that's what I was made to do. Perhaps I'd even be happier than I am today..."

For McMillen, creating videogames has always been about expressing something of who he is. The need to make money is an irritation, rather than an incentive. He grew up in Santa Cruz and experienced a somewhat turbulent childhood following his parents' divorce. "I was quite a loner," he says. "I drew a lot and got in trouble a lot. I was an overly anxious, weird kid." In the third grade, McMillen was diagnosed with dyslexia, something that further cemented his view of himself as a creative child with few academic prospects. While he continued to explore the local woods, catching insects, he gave up his dream to become a marine biologist. "My extended family were all high achievers, so it seemed pointless to try hard as I was never going to stack up. I threw myself into what I was good at: drawing."

At the age of six, McMillen was given an Atari 2600. "That was a turning point," he says.

"Videogames spoke directly to me. These simple-looking games allowed me to fill in the gaps with my imagination. It sparked a creative light in me."

As McMillen grew older, he would write fiction that drew from the *Castlevania* series and draw his own designs for *Super Mario Bros* levels. When local comic book author Clay Butler visited his school, McMillen immediately knew that this was what he wanted to do with his life. "He seemed so cool to me," McMillen recalls. Nobody else in the class thought so, but I stayed behind after the class to talk to him. At that moment, it was clear I wanted to be an artist. I didn't know how to make money doing that, but I knew that wouldn't stop me."

McMillen sees his early creative steps as a way to express himself to people when, in social terms, he found intimacy tremendously difficult. "Being able to produce something and see how people react to it is a form of communication," he says. "It's a weird way of having a conversation that my broken brain can handle. I think it's the reason that people make any kind of art."

McMillen would stay up until 5am drawing – a habit that continues today. He would self-publish his comics, sometimes stealing money to pay for the printing, and sell them at school and in local stores. But when a local comic book publisher rejected his work, he realised that he needed to find a new outlet. McMillen enrolled in a

community college course to learn how to use Flash software. While he eventually dropped out of the class, he'd learned enough to produce interactive web comics, which quickly brought him to the attention of Tom Fulp, the founder of culty website Newgrounds and co-designer of *Castle Crashers*. Fulp contacted McMillen

to see if he would be interested in working together. That project was eventually cancelled, but not before the artist had fallen in love with the idea of making more games.

McMillen offered to volunteer at a local game studio, Chronic Logic, and after a few weeks the company offered him a job as an artist. It was here that he co-designed *Gish*, a Flash game that would win the coveted IGF Grand Prize and Innovation awards in 2005. "That was when I realised there was a huge new frontier of independent people making games," he says. "It was so inspiring. You could just make a game and sell it for whatever you wanted to sell it for." But while the IGF awards justified McMillen's

CV

URL www.supermeatboy.com
Sofotography *Gish* (2004), *Super Meat Boy* (2010), *The Binding Of Isaac* (2011).



career move, it presented a new problem: "Winning the IGF was the best thing that could happen to an indie game developer. There was no Steam. There was no Xbox Live. There was nowhere else to go."

McMillen made a number of subsequent Flash games, which dealt with an unusual range of subject matter. When American magazine Game Informer featured his unusual creations, Microsoft, Sony and Nintendo each contacted him to ask if there was a console game he would like to make. McMillen signed a deal to bring a sequel to *Gish* to XBLA, but the project faltered midway when the relationship between McMillen and coder Jonathan McEntee soured. Midway through development, McMillen left the deal and, in partnership with coder Tommy Refenes, pitched a new game to Microsoft based on a Flash game character he had created a few years earlier: Meat Boy. "Nobody at Microsoft liked the idea apart from our producer," he says. "Without him it would never have happened."

That foresighted producer's support resulted in a tremendous financial success, but what *Super Meat Boy* really earned McMillen was the one thing he'd always wanted: creative freedom. "I no longer have to worry if something will sell or not," he says. "I can just make things that are honest and genuine." His subsequent game, *The Binding Of Isaac*, a 2D roguelike study of religion, was also a monetary success. But he describes his next title, a cat breeding game called *Mewgenics*, as "commercial suicide". For McMillen, the possibility of failure is much more important than the safety of success. "That danger is crucial for me to grow as an artist," he says. "I need the possibility of failure rather than the safety of a sequel. It's not that I want it to fail, but I do want to take that risk."

A risk-taker is how he wants to be perceived. "I'm going to keep pushing till I am no longer invited. I am the guy at the party who is getting drunker and drunker and everyone is enjoying it till it goes too far. In some way, this either peters out or explodes. I'm going for the explosion. At least until people say: 'No more.'" ■

CREATE
PEOPLE, PLACES, THINGS

Places

LEBOA-SAKO AND BOWA-SEKO

Heat, murder and malaria in gaming's most oppressive locale



In July 2007, the studio sent some of the team to Kenya on a fact-finding mission. They camped on the savannah. When they returned, they drastically changed the game to reflect their experiences

From *Far Cry 2*
Developer Ubisoft Montreal
Origin Canada

This is not the African continent of holiday brochures, its mustard-toned savannahs, iridescent watering holes and peaceful fauna welcoming to the most timid of tourists. This is not a nation captured in a National Geographic spread, where local people go about their business against a backdrop of endlessly beautiful nature. This is the Africa of a sidebar story at the back of a newspaper's international section. This is the Africa of the guerrillas, those who fight over a carcass land stripped of resources by long-vanished colonialist vultures.

Even the most unwelcoming videogames are often set in places that, aside from the bullets and peril, have a holiday-destination appeal. And the *Far Cry* series boasts some of the most appealing vistas in the medium. The first game is set within a Southern Pacific archipelago, its shimmering scenery inspiring even the most focused fighter to occasionally stop and stare. Likewise, the blue mountains that rise out of verdant blankets of foliage make *Far Cry 3*'s Rook Islands some of the most precious jewels in either the Indian or Pacific Oceans. *Far Cry 2*, however, is a grim exception, and not only for the series, but also the entire medium: its twin regions of Leboa-Sako and Bowa-Seko are as unremittingly unwelcoming as its residents.

This is the Africa of pothole-cratered roads, of rusty AK-47s, worthless money, dusty shantytowns, blistering poverty and unshakeable malaria. Leboa-Sako, where you begin the game, ebbs and flows between barren desert and sweltering jungle. It has its own sort of beauty, but one that masks a hostile character. Bowa-Seko, its conjoined twin in the south, revolves around Mosate-Selao, a town under a shaky ceasefire. But there are no such promises elsewhere. Militia run the neighbouring roads and villages, and line the banks of the vast Lake Segolo.

The setting has a heavy sense of authenticity; indeed, Ubisoft Montreal's art team reported of being surprised at how much the real Africa it visited during development for research differed from the one of imagination. So *Far Cry 2*'s crooked, wasted trees and dense tinderbox thickets (which light up at the slightest provocation) are plucked straight from reality. They have none of the usual welcoming sheen of a videogame set. Most game worlds are built around their player and exist for the player's whim, edification or entertainment. This is a videogame world that is,

Here, humanity
has been thinned
by heat and
violence, the
rules are distinct
and unfamiliar

at best, indifferent to your presence. At worst, it's entirely hostile towards it.

The hostility goes beyond mere scenery, too. *Far Cry 2*'s systems not only reflect the character of its setting, but in many cases are born from it. Here, the poverty extends to your inventory. Your guns might lock up and fail at any moment, and if you crash your corroded jeep into a tree stump, you'll need to fix the mechanical damage yourself with sweat and spanner. Likewise, medical attention takes the form of prising bullets from wounds with pliers. To add illness to injury, your character is sick with malaria throughout the game, which must be managed with a fistful of pills every 20 minutes. Played on a console, every trip is taut with the danger of loss: lose your life

before you make it to a safehouse and your progress will disappear with it. The stakes are never anything but extreme.

The lack of relief (comic of otherwise) from this intensity can be wearying, but there are occasional concessions. Despite the clear indication that these regions have long been stripped of their valuable resources by imperialist settlers, diamonds can be found in the rough, making up a currency that can be used to import better equipment or simply pay for a round of drinks for people you meet. But these rare moments of capricious kindness are offset by the guerrillas that own the land. Both Leboa-Sako and

Bowa-Seko are regions liberally punctuated by hostile checkpoints, whose guards, their AK-74s dangling lazily at their sides, either peer into your truck to see what's worth stealing or simply open fire on sight. This makes every trek across the country a costly one: do you attempt to drive through the checkpoint and enter into a cross-country car chase, or take the off-road route and, more likely than not, find yourself upturned in a ditch long before you reach your destination?

Joseph Conrad's *The Heart Of Darkness* is a clear influence (even one of the early missions is named after the novel) and the game matches Conrad's work in engendering a sense of journeying into forgotten and forsaken Africa. Here, humanity has been thinned by heat and violence, the rules are distinct and unfamiliar, and more than anything, you are not wanted. In the end, even your closest friends turn against you.

This is a game world, which – much like its inhabitants, who eye you with suspicion and cruelty – goes out of its way to discourage you from revisiting. Its churches and clinics do not exist for your benefit. Even the ex-pat bars are wary of your presence. It's telling that only the safehouses provide genuine pockets of safety and security, but are remote, cramped rooms where you are usually alone. As silently requested by the game, few will return to Leboa-Sako and Bowa-Seko once the credits have rolled. They aren't designed for repeat business. In this sense, *Far Cry 2* is an unequivocal success. Rarely have the human forces that oppose you been so backed with such resolution by a game's very geography. ■



At one point, the game was so coherent that it was possible to finish the story unwittingly if a forest fire killed the final boss

CREATE
PEOPLE, PLACES, THINGS

Things

SPLINTER CELL'S TRIDENT GOGGLES

The three lights that defined a decade of Ubi stealth games



Fisher's still recognisable, despite the change from grizzled old man to handsome actor face, so long as those lights shine out from atop his head

From *Splinter Cell* series
Developer Ubisoft
Origin Canada
Debut 2002

The question, of course, is why the bad guys can't see the three lights glowing like a Christmas tree in the middle of Sam Fisher's face. The answer is a sigh and an explanation that only makes sense to people who play games: they exist for the player, serving as an essential beacon by which to pick out Fisher when all else is darkness. They're as much a videogame contrivance as the floating hit points in an RPG fistfight or the succulent roast chicken Mike Haggard finds in a bin. Those three green lights are pure videogame language intended only for players, but they've become *Splinter Cell*'s signature, sitting right there in the logo of last year's Fisher rejuvenation, *Splinter Cell: Blacklist*.

Fisher's goggles have changed over the years. The first generation, featured in *Splinter Cell* and *Pandora Tomorrow*, gave him grainy night vision and infrared views of the world. Electromagnetic vision joined that pair in *Chaos Theory*, letting you track the connections from security cameras, say.

When *Double Agent* moved the series to 360/PS3, Ubisoft Shanghai gave Fisher a full-colour night vision mode, but Third Echelon must have introduced a carrot-heavy diet in the years between *Double Agent* and *Conviction*, because Fisher has perfect night vision without gadgetry by the latter. Instead, the Sonar Goggles he collects in the campaign give him a limited view through solid objects, with the same three lights and startup whine from past *Splinter Cells*, but a softer glow. In a game where Fisher can see everything, players no longer needed help to locate him in the dark.

But by losing the three lights, Ubisoft lost *Splinter Cell*'s identity. The Trident goggles are to Fisher what the 'S' is to Superman. More than that, they were once his only superpower. In a world where being seen means death, clear sight in absolute darkness makes Fisher superhuman. In shadow, he's the only one able to see with perfect clarity, able to move inches from his enemies unseen and to explore spaces others can't. In the kingdom of the blind, Fisher is a three-eyed man – he sees heat, he sees electrical current, and he sees through walls. With those goggles, Fisher is empowered by darkness just like Superman is powered by Sol's light.

But if Fisher's strength is drawn from darkness then light is his Kryptonite. Bright light overloads the goggles and renders them powerless, blinding you as the lenses adjust. It was a gift to the designers of the early *Splinter Cells*, who could



As soon as you could kill three men with a button, the goggles felt a lot less special. They are a tool for a vulnerable Fisher

ramp up the danger with a flick of a light switch. But since *Double Agent*, Fisher has operated so frequently in daylight that the stab of fear when the lights come on is gone. "The main consideration with the reduced usability in *Splinter Cell* and *Chaos Theory* was that being invisible in the dark required a trade-off," says **Clint Hocking**, designer, director and producer of *Splinter Cell*.

"Limiting the player's [vision] was one of the things we did to balance this 'invisibility' so he would not be too powerful. It's pretty basic."

What was once a piece of basic design was lost on *Blacklist*, which once again put Fisher in the multivision goggles, but gifted him with countless superpowers. There's his insta-kill button held over from *Conviction*, his drone that can

reach out and touch enemies several rooms away, and enough firepower to win any shootout if he's caught with his pants down when the lights come on. With or without his headgear, the modern Fisher is empowered to the point of invincibility, and the designers' only recourse is an overwhelming flood of powerful enemies. Once, two men and a light switch would strike fear into players. Now it takes an army.

But at least *Blacklist* marked the return of the game's signature tool. *Double Agent* and *Conviction* shipped without the three lights anywhere on the box and only occasionally in the game, but that aged, ill-equipped Fisher could never last. Sure, you can turn Superman into a

living lightning bolt or break Batman's back, but in the end fans remember what a hero was about and want that back. They'll cry out for a return to the character's roots and lobby creators for the hero they loved, so Ubisoft Toronto listened and responded by putting the trident on *everything*.

Those lights have never glowed brighter, filling the screen with piercing lens flare and appearing on every piece of promotional art. *Blacklist*'s collector's edition steelbook case features a set of goggles dangling from a disembodied fist without even a logo. The Trident is in *Blacklist*'s trailers and all over every piece of key art, it was 40 feet high on the big screen at last year's E3 presentation, and it sits between the words 'Splinter' and 'Cell' in the logo. "They were always a consideration and they are prominent, going all the way back to the original," Hocking explains. "I suspect that if you notice it more now, it is likely because of a more coherent, more intentional or more carefully orchestrated marketing/brand campaign to make those three green dots as iconic as possible."

And with good reason. Those three dots were never as important as they were the day Fisher's face wasn't Fisher's face any more. In *Blacklist*, the grizzled Michael Ironside Sam Fisher is replaced by a Fisher who looks 30-something, with a new voice and fewer lines on his face. But thanks to his headgear, he's recognisable even with a new head on his shoulders. Those three lights gleaming in the darkness are Fisher's superpower, his emblem, and the only face he'll ever need. ■

STUDIO PROFILE

Lionhead

How the team behind Fable is adapting to new hardware, new processes, and life after Molyneux



- 1 The changing faces of *Black & White*'s helpers.
- 2 *Black & White 2* was the studio's last game for EA.
- 3 2005's *The Movies* was arguably ahead of its time.
- 4 Fable's comedic artwork was unusual for Xbox.
- 5 As in *Black & White*, power corrupts in *Fable II*.
- 6 *Fable III*'s industrial setting meant a new look.
- 7 *Fable Heroes*' cartoon art masks a middling game.
- 8 *Fable: The Journey* was driven by Unreal Engine 3.
- 9 *Fable Anniversary*'s art is familiar, but it's been redone from the ground up.
- 10 *Fable Legends* is built to last the next decade.

Lionhead Studios is changing. Formed in 1996, the Guildford-based developer has undergone several key shifts over the years, not least its acquisition by Microsoft in 2006. Now it's getting used to a new way of doing things: adapting to new middleware, new hardware and a change to the development process. The latest entry in its most famous series, *Fable Legends*, is pitched not as a game, but as a service, for which its publisher has an ambitious five-to-ten-year strategy. And, of course, it's doing all this having lost its figurehead, founder Peter Molyneux, who left in late 2012, shortly after the completion of *Fable: The Journey*.

Speak to its employees, however, and you'll get a different story. For Lionhead, it seems, it's business as usual. **Stuart Whyte**, studio director, has been at the company for ten years and has witnessed a number of changes. Such developments, he says, are par for the course in this industry. "Peter's moved on, but we still have a lot of talent. Culturally, has it changed? Definitely, but any company has to change and adapt – it's important that we stay nimble and keep going."

Ted Timmins, another Lionhead veteran, and director of *Fable Anniversary*, suggests Molyneux's departure has had less of an impact than some might think. "The [development] culture becomes ingrained, and I think that's the key – people can come and go, but the feel and the vibe of the studio will always remain the same." It's important, he explains, that Lionhead can now let the games speak for themselves. "We're focusing more on talking when we have something to say," he continues, before adding, "and I mean that with the greatest of respect."

Has this change at the top given Lionhead the opportunity to forge a new identity? "I think so," says *Fable Anniversary* producer **Craig Oman**. "Recently, we've relaunched our website and forums; we're very reactive on social media, so I think you do see a difference. We're much more open as a studio, more contactable, reachable."

"Another way of putting it is that there are lots of voices," Timmins chips in. "We're always talking to the fans, and I think [they] appreciate that they can just chat to us directly and get an honest answer." There's a wry smile before he gestures to the PR man in the corner of the room. "I think you should ask [Microsoft PR] Dom what the biggest change was for him!" The room fills with laughter. "What hasn't changed," Whyte



Lionhead was purchased by Microsoft in April 2006, bringing *Fable* under the Microsoft Game Studios umbrella for 360

later adds, "is the crazy, innovative, creative approach that we take. There's a lot of passion at this studio, and passion – when channelled – works really well." Whyte's time at Lionhead began in 2004, when he spent a month "locked in the boardroom" as a playtester for the original *Fable*, before moving on to Hollywood mogul simulator *The Movies*. By then, Lionhead had already released the divisive god game *Black & White* and its expansion *Creature Isle*. But it was *Fable* that really put the studio on the map, and it's the franchise Lionhead is now wedded to – the success of *Fable II*, two years after being

purchased by Microsoft, has proven to be a golden breadcrumb trail its publisher is keen to follow. Now, ten years on from the original, the release of *Fable Anniversary* is a time for the studio to reflect on past achievements as it looks to the future with *Fable Legends*.

"There have been a lot of changes in the ten years I've been here," Whyte says. "[From being] an independent developer working with Activision and EA, to being acquired in 2006, and in recent times moving to Xbox One, to Unreal [Engine] and that codebase – I mean, these are pretty fundamental changes."

Indeed, the move to Unreal has made a big difference to how the studio operates. As recently as 2010's *Fable III*, it was using its own proprietary tools, moving to Epic's widely used middleware only with Kinect spinoff *Fable: The Journey*. "Unreal, in its earliest incarnations, was great if you were making corridor-based shooters, and that was about it," Whyte explains. "*Black & White* and *Fable* were difficult to [make] with those kind of tools, but it made sense to take it on board as the middleware has improved."

The Unreal-powered *Fable Anniversary* is, Whyte suggests, one of the prettiest games Lionhead has released, though it's been a more



LIONHEAD STUDIOS

Founded 1996

Employees 120

Key staff John Needham (studio head), Stuart Whyte (studio director), Louise Murray (production director), Ted Timmins (*Fable* franchise manager)

URL www.lionhead.com

Selected softography *Black & White*, *The Movies*, *Fable I-III*, *Fable: The Journey*, *Fable: Anniversary*

Current projects *Fable Legends*

time-consuming project than had been originally anticipated. Timmins pitched it at the company's annual Creative Day – an idea inspired by Google's '20 per cent time', initiated to give employees one day off per week to work on individual projects – before returning to present it to the rest of the studio. The idea was greeted warmly, though the process of updating the game demonstrated just how far Lionhead – and game design in general – had changed in ten years.

"Our first thought was to make it high-definition," says Timmins. "So you make it look incredible but then suddenly the gameplay's a bit dated, and the controls feel dated, and the UI is crap, and the save system doesn't work. And then it turns out you've essentially just built a game from scratch. The difference is that you have the pressure of what the fans know [about the game], and they have certain expectations."

"With some games you realise after a while your ambitions are too high, so you trim out the inessential stuff. But you can't do that in a game you're remaking," Oman says. "You can't take out farting!" laughs Timmins. "And imagine if we took out chicken kicking. The uproar!"

"I remember discovering something during development," Oman says. "That if you fart as a boy it's higher-pitched than if you fart as a man."

That sense of humour is, in some respects, the defining trait of both Lionhead and *Fable*. The series has a quintessentially British feel, and the comedy element is a significant part of its wide



Fable Legends (left) will be Lionhead's first always-online game. It's a focus-grouped and targeted design, a far cry from the much-hyped game that launched the company, *Black & White* (above), which was always clearly a Peter Molyneux project, for both good and bad

appeal – and what differentiates it from the myriad fantasy RPGs that take themselves more seriously. But having been subsumed into a global corporation, is there a pressure to make it less parochial? Timmins shakes his head. “They [America] love it. They lap it up. America is our biggest market. They think we’re being silly.”

“It’s like Monty Python stuff,” says artist **Jim Vale**. “That’s what makes it *Fable*, really. Without that humour, it’s not a *Fable* game.” Timmins lets slip details of an Achievement in *Fable Anniversary* to prove his point: “There’s one called Ass Creed, which you get by dressing as an assassin and letting rip.” The game’s not afraid to poke fun at itself, either: visiting every region of Albion earns you the Definitely Not On Rails Achievement, a reference to the online debate surrounding *Fable: The Journey*’s linearity.

What makes the series unique is not lost on new studio head **John Needham**. The former Gazillion Entertainment CEO is also Microsoft’s head of European publishing, and while it’s his responsibility to push Lionhead in a new direction with *Fable Legends*, he’s adamant he’s not about to change the core of the game. “It’s a truly special IP in the industry in its Britishness and its character,” he says, “and that’s essential to what makes it what it is. If it was just another traditional fantasy RPG, it wouldn’t work. So I’m happy to leave all the writing and character creation to the wonderful British talent we have.”

Despite being part of a multibillion-dollar corporation, Lionhead retains something of the mentality of an independent developer. *Fable: The Journey* was born not from demands from above to make a *Fable* game that was compatible with Kinect, Whyte insists, but simply a benefit of having early access to “cool new functionality”. The same applies to *Fable Anniversary*’s SmartGlass features. “[It’s] an example of when we get a new toy, we like to play with it,” says Oman. “When we first saw SmartGlass, we really

wanted to make something with it, and *Fable Anniversary* with an interactive map felt right. The game wouldn’t necessarily be a good fit for Kinect, but it would for SmartGlass. That’s how we approach any tech: ‘What can we create for a platform, and is it suitable?’ There’s not some sort of mandate to go and add SmartGlass [functionality] – it’s what we want to do.”

“In my view, we get the best of both worlds,” Oman continues, a phrase we hear more than once during our visit. “In terms of the studio, we create our own projects, and we’ve got the incubation teams springing their own ideas and presenting them to Microsoft. They’re not some overbearing overlord, they’re there to support us.”

That support extends to using the talent of the network of studios Microsoft now owns. When regular *Fable* composer Russell Shaw was unavailable to write the soundtrack for XBLA brawler *Fable Heroes*, Rare’s Robin Beanland

stepped into the breach. The studios all share technology and expertise, while Microsoft’s experienced central teams handle localisation and other elements that an indie wouldn’t be able to manage by itself. “From a game design perspective, it allows you to focus on the game itself,” says Timmins. “You don’t want to have

to worry about all this other fluff. You want to put your headphones on and make content.”

Lionhead is able to tap Microsoft when resources are required for a project, but the publisher has invested significantly in the studio environment. A state-of-the-art audio lab is the most recent addition, and Microsoft’s dollars also funded a motion-capture studio, which Timmins hopes will allow Lionhead to reach the benchmark set by the likes of *Uncharted 3*. “It’s really useful. You still want hand animators to polish it up, but this is great for the first pass. Naughty Dog has really set the bar for mo-cap, and now studios need to keep up. And you can only really do that when you have a facility like this.”

It’s a mutually beneficial relationship, too, with Lionhead’s work on *Fable: The Journey* allowing the studio to give something back. “We developed all the seated [Kinect] technology,” Timmins explains, “so it was nice to be able to play a part in helping make the hardware better. When we went on the road, people got so used to standing up [that] we had to tell them to sit down.”

Lionhead may also have to get used to being in a different position. For the majority of the studio’s staff, the development process has changed dramatically. “With traditional game development for console, you’re not really playable until the very end of the cycle, and it’s a very scary time when it all comes together,” says Needham. “[For *Fable Legends*] we’re already live, and that’s important when you’re building a game as a service, so you can iterate, see what your changes are and play them right away. So that’s been the biggest change in our process: we always want to be live and playable.”

And yet, for all the changes, the company’s culture and attitude remain the same. “We’ll have meetings with Phil Harrison and Phil Spencer, and they’ll still set us goals as a studio,” Timmins explains. “So they’ll say, ‘We want to deliver these experiences, and we want fans to play this.’ But then that’s kind of it; we’ve been told what they want from a high level and we get on with it. And that’s not that different from what’s gone before, where I’d be given an outline for a level in a paragraph, and as a level designer I’d have to make something from that to flesh it out.”

It’s evident, then, that while Microsoft continues to invest in the future of both the studio and its most famous IP, the publisher realises the value of Lionhead remaining independent and British. “It’s such a creative environment,” Timmins says. “[Microsoft] knows it’s important to let people have their own stamp on things.” That’s why, despite changes in personnel, in the development process, and in the technology it’s using to achieve its goals, Lionhead is still very much its own beast. ■



Q&A

John Needham
Studio head



Did you feel pressure coming into this job?

I don't feel pressure. I'm honoured to be working with the guys who've been here ten-odd years, and been involved with every *Fable* product, because it's an IP I love. My standards are high for the IP because of my love for it, and the perspective I bring to the studio is a focus on community and online.

What does that focus on community entail?

It's been a lot of evangelising the power of connected games. I think the real magic in the industry now is taking great traditional gameplay and IP, and this new connected world, and mashing them together.

Fable Anniversary uses SmartGlass, and now you're moving on to *Legends*, which has a focus on online play. Is that essentially your mandate, to push this connectedness?

Correct. I am the person pivoting Lionhead into a games-as-service studio. *Legends* is quite different from previous *Fable* games.

How is that going to work?

The trick with *Legends*, and the question we're constantly asking, is: 'Is it *Fable*?' Even with the connected aspects. That's why *Fable Anniversary* launching in February is perfect, because it grounds us – we want to make sure we're maintaining what makes *Fable* great.

Now we're looking at all these great online features we're building into *Legends*. We're bringing both of them together, taking what's great about *Anniversary* and [*Fable*] II and III and bolting on features that make it a great connected experience.

Which online games have inspired you?

My inspiration is shared with a lot of the design guys – we play games like *Dark Souls*, which has a great online mode, and *Journey*, where people are flowing in and out of your world organically. They're very natural online modes.

Will there be other *Fable*-related projects?

The next big game is *Fable Legends*. We can do other styles of *Fable* games, and keep them within *Fable Legends*. My plan is that *Legends* is essentially a platform for almost everything *Fable* going forward. It's a long-range plan, of five to ten years, where we're going to build and keep building onto *Fable Legends*. That's the nature of games as a service – you keep adding systems and features and content.

How will you hold people's interest that long?

There are lots of examples in the MMOG world of keeping players engaged for that length of time, with new content constantly flowing into the game, and bolting on new [modes] into your game to keep it fresh. It all comes down to listening to your community, building content into the game that they want, and then iterating upon that.

How about microtransactions?

We haven't talked about the business model yet. We're just trying to build a great game.

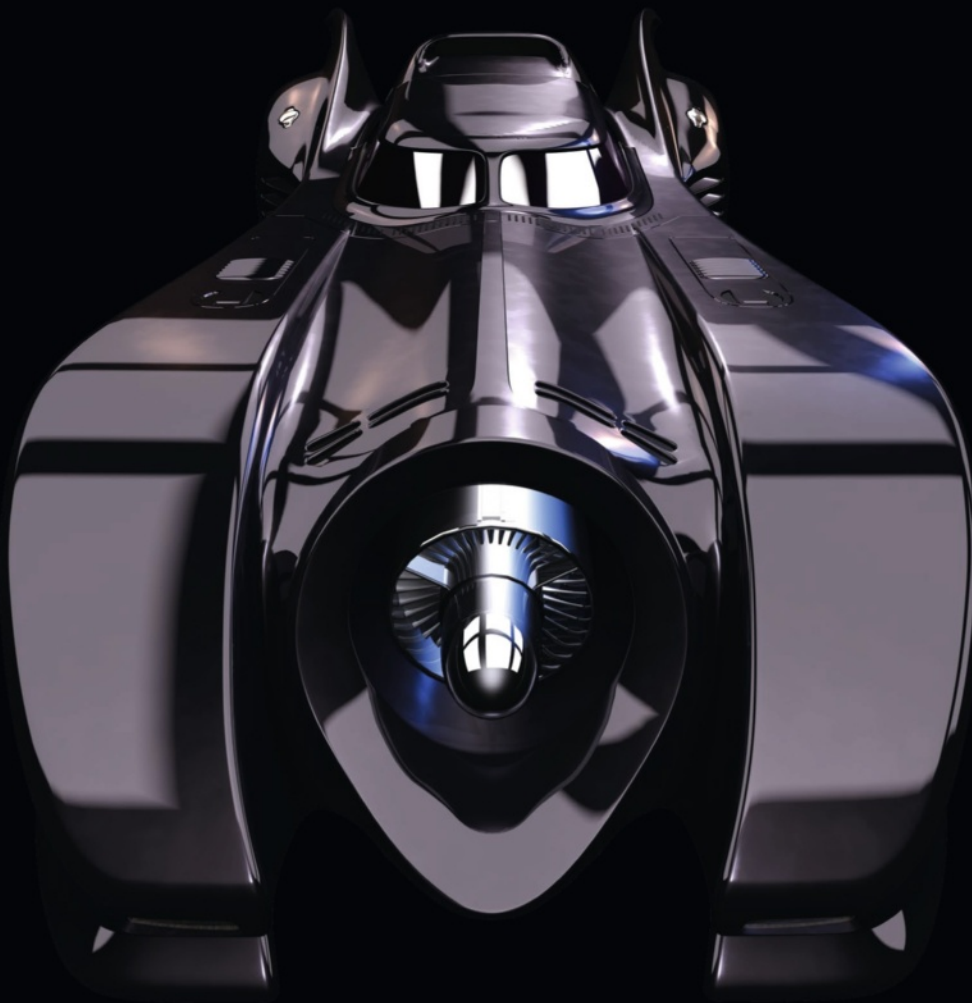


TOP Jim Vale (art director), Craig Oman (producer) and Ted Timmins (lead designer) collaborated on *Fable Anniversary*, whose visual motifs influence all sorts of spaces around Lionhead's Guildford HQ

THE MAKING OF...

Batman

The design, coding, branding, wooden panels and plastic wheels of a modern arcade game



Though it was drivable in 1993's *Batman Returns*, the 1989 Batmobile by Tim Burton's production designer Anton Furst is more appealing in its modern coin-op guise

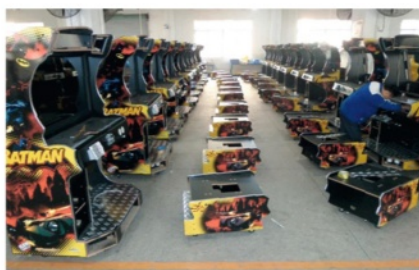
Format Coin-op
Publisher/developer Raw Thrills
and Specular Interactive
Origin US
Debut 2013

Brian Silva is Specular Interactive's creative director, but he's also a dialogue director, researcher, level designer and the voice of Mr Freeze. Specular's new *Batman* arcade racer is a blockbuster game with a blockbuster hook – ten different Batmobiles torn from Bat-history in an open-world arcade driving game – but it's also a game that was built by a team of just seven, and everyone had to multitask.

"I've been making games since the SNES and Sega Genesis," says Silva, who also voices The Penguin, Scarecrow, and various goons and cops. "I grew up in the big arcade heyday, and to me arcade games are still the pinnacle of coolness in videogames. When you finish a project, you can walk into a room and see it – you don't have to open a box or click a little app – and arcade gaming is so different from home gaming. With home gaming, you're given a lot more freedom to gradually introduce the player to the game and the concepts, but in the arcade the player needs to get it in five seconds. You can't stop the game, you can't pause the game, you can't do a tutorial system in the arcade; if they don't get it on their own, you've failed."

Less visible differences play out behind the scenes. *Batman* began shipping to American arcades in mid-December, marking the end of a two-year development project. But putting players behind the wheel of a Batmobile had to be done without costs ever approaching the budget of a *Call Of Duty*. "Those guys probably pay as much for food as we do for an entire project," **Andrew Rai**, the art director in charge of replicating 11 Batvehicles and a sprawling Gotham City, jokes. "We're aiming for triple-A quality with a C-game budget. I think we did pretty well for ourselves."

Specular has made arcade racing games in collaboration with Raw Thrills before, and both *H2Overdrive* and *Dirty Drivin'* were successful cabinets for the teams, but *Batman* is a more ambitious game by far. In it, players take one of ten Batmobiles or a single Batwing out onto the streets of Gotham. There, they'll battle common criminals and the game's three bosses across a mission-based campaign that the studio had to design with little room for redundancy. Silva's recording sessions with the other voice actors had to go perfectly every time to keep costs down, Rai's team had to stick to a day-to-day schedule and design every art asset with an eye on the



These *Batman* cabinets are under construction by Raw Thrills' contractor UNIS Games, which also builds for Sega and Namco

clock, while studio president and founder, technical director and engine programmer **Steve Ranck** spent six months locked away while he built the game's engine almost from scratch.

While Specular handles coding and cabinet concepts, Raw Thrills takes care of manufacturing and distribution of the \$7,575 cabinets, placing them in a familiar publisher/developer relationship of sorts. After *Dirty Drivin'* hit arcades in 2011, Specular moved onto a cops-and-robbers concept in need of a licence "because nothing like that has been done in the arcade", Ranck says. "Crazy Taxi is the closest thing, but that only has one mission; we have 37. Doing racing games is pretty safe even now the market is smaller than it was in the '80s and '90s, but an open-world driving game where it's mission based is

something completely different. That's the risk factor. [Raw Thrills] was a little nervous to make something like that, but tie it to a strong licence and that's the tipping point."

Spy Hunter was a likely candidate for the development team in the early days, but even that game's arcade heritage was

too weak for Raw Thrills. "One day we thought, 'What about Batman?'" Ranck says. "He has all these tools, great vehicles and he's the ultimate cop versus the ultimate robbers."

Arcade games are a different kind of design with a different kind of starting point. *Terminator Salvation* and *Aliens Armageddon* are among Raw Thrills' lineup, Namco trades off of *Mario Kart* in Europe and America, and Sega made more from *Rambo* in the west than it ever could with another *Virtua Fighter*. 2014's first major release is the Sega-made *Transformers: Human Alliance* shooter. As arcades have changed, design trends have shifted to match, and today arcade veteran Ranck works to find the ground

between instant appeal and a game requiring enough skill to be worth a second play.

"We shipped *Hydro Thunder* in 1999/2000, and that was probably right before the arcade industry took a huge nosedive," he says. "*Hydro Thunder* was a skill-based game and [the boats] were difficult to drive, but players in that era loved the challenge of skill-based games. Nowadays, there's a saying in the arcade industry: 'Skill kills'. But we always try to build in a level of skill, even if it's not required to play the game well. If we made a lousy game and put the Batman emblem up, I think we could probably get a lot of first players just from people walking over to have a look. The difficult part is to get that second play. That's what we're really after; if we get that second play, then we've done our job."

In a space where skill kills, the first challenge for a game initially named *Batmobile* was making Batman's cars feel like they're being driven by Batman, rather than a clumsy first-time arcade player. Giving players full control meant throttling the cars to an unacceptable degree. "You felt like you were moving very slowly in this car," Ranck explains. "And that was no good. You're Batman. You have to be sitting in the cockpit and moving at really high speed. I don't know if you've ever watched someone play in the arcade – we watch people a lot – but there's a lot of overcorrecting going on. Now imagine that amplified to *Batmobile* speeds and add right-angled turns at intersections. That was a lot to ask [of] players in this open-world environment, so we decided to try something unique."

"We came up with this idea to do a slot-car system. If you hold it straight, your car will drive down the road straight. If you want to change lanes, you turn and as soon as you straighten the steering wheel the car straightens out. Players aren't even aware of it, but the car just seems to be more responsive. When they hit an intersection, the player just wants to crank the wheel, so it automatically skids and then moves the vehicle in the right direction. It was a several-month project getting that to work, but once we had that down, it was a great day. Nobody knew what was going on; they just felt like they were in charge."

"There's always the point in the project where the game goes from nobody wanting to play it to everybody wanting to play it. *Hydro Thunder* was not a fun game at all [at first], but then one day I remember it being two or three in the morning and the team staying in just to play the game. The same thing happens with the games we make" ➤

here at Specular. There's some magical turning point midway through the project where it just changes." *Batman* was in development for two years, Ranck adds, but it wasn't fun to play for the first year and a half.

The handling model had to be perfect to ensure the Batmobiles were the stars of the show. *Batman* features two versions of the 1966 Adam West open-top, the Batman and Batman Returns Tim Burton gothmobile, Joel Schumacher's Batman Forever and Batman & Robin neon missile, various versions of the Batmobile from The Animated Series and The Brave And The Bold, Chris Nolan's Tumbler, and even Rocksteady's *Arkham Asylum* Batmobile, drivable for the first time.

"There are hundreds of Batmobiles," Silva says. "I think what it came down to was the time we had for the project and what we perceived as being the most recognisable. There are some super-cool Batmobiles from the comics that are a little more on the fringe for most Batman fans, and we gradually whittled down the list to a shortlist, and then that list down to the ones in the game. The last to be cut was the original Batmobile from the 1940s."

As a bonus, Specular included an 11th vehicle: the Bat from The Dark Knight Rises, built using the movie's CAD models, as supplied by Warner Bros itself. "I was honestly very impressed with Warners," Ranck says. "For such a large company, I was really surprised with the responsiveness we received. They seemed excited from the very beginning. We actually received the computer model of the Bat and they got us the *Arkham Asylum* Batmobile from Rocksteady. I reached out to Rocksteady twice and I didn't get a response, so I went to Warner and they said 'Sure!' and sent us the model right away."

"We had to submit everything through Warner," Ranck continues. "Every aspect of this giant game we had to submit to them for their approval. Typically, we would get it back within one to two days. Sometimes up to one week, but typically one to two days."

What support was on offer was essential to Specular's art department, as small as it was. "We tried to stick to the materials Warner gave us," Rai says, "but many of the materials provided were all very comic book based and the bottom line was we had to make Gotham City look like any of the Batmobiles from any of the movies and any of the TV shows could fit within it. If we made something too cartoony, then the Tumbler wouldn't fit in there. If we made something too desaturated, then the Schumacher Batmobile or the Animated

Q&A

Steve Ranck
President, Specular Interactive

Why did you return to developing arcade games after being part of Blizzard's family?

My former company was Swingin' Ape Studios, which got purchased by Blizzard, and I went from hands-on to being in management. Blizzard is an amazing company and that whole experience was amazing for me, but I missed the hands-on part of it. I just needed to have that part of my life again.

How has Specular's technology evolved since *H2Overdrive* shipped in 2009?

Well, we started the company with *H2Overdrive*, and then we went to *Dirty Drivin'* and evolved the engine, but it was still DirectX 9. When we started working on *Batman*, we started working with that engine, but we quickly ran into a wall with performance... We made the decision to cut it loose and redesign from scratch a DirectX 11 high-performance rendering engine that we knew could be capable of rendering a city that is this large. I think there was a good section of time where I worked from home, but we got it done and the engine is amazing. It's maybe not Unreal 4, but for a small arcade company it was definitely good. Arcade hardware is very cost-sensitive, so we tried to use lower-end PCs with mid-range graphics cards. We had to build the engine knowing the PC was a low-end PC, and that's where the majority of the work went.



ones wouldn't fit. We didn't want to go with a cartoony looking game. We wanted to make it look as realistic as possible. We ended up just trying to shoot for that – within the time frame, of course – and we needed it running at 60fps, so we couldn't have a lot of super-crazy shaders and we kept it fairly streamlined, style-wise.

"There's passion for the project," Rai explains, "but that only gets you so far. You need to be completely efficient. I was a real stickler when it came to scheduling, making sure everyone was on task, but I was also a stickler about just reusing as much as possible. You're going to get a variety of different enemies by reskinning them; you can have a variety of different buildings just by rearranging the bottom and the colour. That being said, there are hundreds of thousands of unique objects placed by hand with 30,000 lights filling the screen that's only possible through clever engineering."

The finished game is a 60fps open-world racer running in a custom engine on a Dell PC

with a mid-range GTX 650 graphics card. All together, it's about three hundred dollars' worth of PC, Rai says, inside thousands of dollars of cabinet. *Batman* stands nearly eight feet tall with a 42-inch monitor and 500 lights, and every component from the wheel to the seat is a custom piece of engineering. This, Ranck says, is one of the most fundamental parts of modern coin-op design. "I was just talking to Eugene [Jarvis of Raw Thrills] about our next game," he says. "I can't talk about it, but right at the start we were discussing that we have to do a great cabinet. With *Batman*, we designed the cabinet in-house, but our designs are just concepts. We have no idea how expensive it's going to be, and we send it to Raw Thrills and they figure out whether it's ridiculous or not. With *Batman*, we got real close to having a second monitor on the dashboard for the map and characters' communications, which Eugene was really excited about, but when it came to cost and sourcing, it wasn't possible. I think Eugene and I see eye to eye about cabinet design: we love the bells and whistles, but then there's the practical aspect of it, which always brings us back down to Earth. Cabinet design is huge. Absolutely huge."

But in the end, Specular Interactive has made a game we'll never officially review and only a few readers will play. Those lucky enough to live near a thriving pier, bowling alley or theme park might be privy to a *Batman* cabinet, but for most arcade games are distant, inaccessible relatives to the console and mobile games everyone plays. With Specular's flair for building accessible games, it could be a powerful developer in the mobile space without needing to expand its team, but the team dismisses the idea with laughter.

"Mobile games are fun," Ranck says. "They're a fun pastime, but I love creating experiences that interact with as many senses as possible. With arcades, we get to think about controls and how the player is going to touch the game. We were adamant that *Dirty Drivin'* weapon crank had to have this heavy feel like a slot machine, we had this complex force feedback system to put what's onscreen in the player's hand, and we embedded a big speaker in the seat... For me, that's what's really fun about making arcade games. We're profitable at this, and with mobile being so crowded, we're very happy doing what we're doing." The others agree. "I think there's something special about it all," Rai says. "And especially working with Raw Thrills on this piece of hardware. It's nice to be exporting something from America for a change." ■



While *Batman* has ten Batmobiles, Specular sort of cheated with two. A silver variant of the 1966 Batmobile is based on a toy, while the camouflage Tumbler is the pre-Batman version seen in *Batman Begins* and *The Dark Knight Rises*. Getting extra value from existing assets meant Specular could include those bonuses at little cost



Mobile infantry

The amount of Batmobile research that needed to be undertaken to fit each vehicle into *Batman's* Gotham varied depending on the model and the medium it appeared in. "Some had more hard material than others," art director Andrew Rai says. "The Animated Series and *The Brave And The Bold* Batmobile had a wide range of different interpretations, since they're either hand drawn or they're rendered on a TV screen. They didn't have a lot of specific blueprints, and since this isn't a cel-shaded game, we had to add realistic elements to make these previously stylised vehicles look real and appear to have realistic detail. There was a bit of back and forth on those two vehicles, trying to get the look right. Most of the other vehicles were a bit easier, since there were a lot of reference materials or – in the case of the Bat and the *Arkham Asylum* Batmobile – they were already made and just needed to be tweaked to run in our game."



Joel Schumacher neon meets Burton's Gothic aesthetic and Nolan's realistic Gotham in a world built to support any Batmobile

What Games Are



TADHG KELLY

The dividends of denial

Throughout my career, I've been involved in a lot of games. I've worked on console, PC, mobile, handheld, Facebook, web, tablet and interactive TV games (and non-digital stuff, too). On some games, I was deeply involved as a designer or producer, while on others I was a consultant or a troubleshooter.

When you've seen a lot of games in development, you start to notice commonalities. You see the same sorts of interpersonal dynamics in studio after studio, the same struggles and the same assumptions. Mostly what you see is failure. And if you're honest with yourself, you know that you've participated more in failure than success.

It's no great secret that failure is the more common of the two. There are the games that fail to get to market, the games that squeak out to general apathy, and the games that arrive in a fanfare of misdirection and ego. The world is beset by bad apps, poorly conceived console releases and inept service games. And those are just the ones you see. Many failed games never see the light of day and stay buried by the nondisclosure agreements of history.

Failure always feels the same: it has a smell of profound apathy mixed with the tinge of slowly encroaching panic. There's a lack of energy in meetings. There's whispering around the campfire and secret exchanges of "I told you so" between confidants. There's a glassy stare in the eyes of those who have worked on the failing project too long. There's a tension between the newbies, who convince themselves it's all going to work out, and the veterans, who've seen this movie before.

One thing common to all failure is the way groupthink takes hold. For example, on failing teams, there is a profound lack of public acknowledgement. In part, this is explained by a prisoner's dilemma (as Upton Sinclair said, "It is difficult to get a man to understand something when his salary depends upon his not understanding it!") and personality politics. Those who complain, or can't couch their honesty, find themselves on the outside of the groupthink. Later, they will be blamed for the failure.

Another commonality is a type of justification where all design decisions can be explained rationally, even celebrated, and yet the sentiment



**Failure always feels the same:
it has a smell of profound
apathy mixed with the tinge
of slowly encroaching panic**

is conveyed that nothing can be done. In a failing team, a game is a Gordian Knot because of outside constraints (a publisher, a business model, a rights holder, a creative director). Team members tell themselves that they made the best of a bad situation and that at least certain parts of the game are good. Never mind that the controls are broken; the explosions look great.

There's also a tendency on the part of everyone involved to lie to themselves and each other. One example is the promise to fix broken things later. This has seen such a massive uptake in the era of patches, open betas, metrics and lean startup thinking that it's now accepted as writ. Yet the reality is that most of that talk is for show. Few of those involved really expect it to happen.

At the heart of all failure, in other words, is the yawning abyss of denial. And, like all abysses, you don't want to look into it lest it looks into you. But denial's influence seeps in anyway.

Optimism and excitement are replaced by tension and dread. People start to get sick. Firings happen on the weirdest pretexts. Real fistfights sometimes break out. Then comes crunch time and the accompanying groupthink opprobrium that haunts those who go home on time. Politics take the place of camaraderie. Those who know the end is coming start to ensure that the finger of blame does not point at them.

Depressed yet? If you're thinking about a life working in games, you should know how grim it can get. It's not always as bad as this, but sometimes it is. And if you want to avoid it, my best recommendation is to practise searing honesty and work with others who do the same.

Like almost all diseases, failure is best caught early and rooted out. The key thing to realise is that failure often has less to do with individuals and more to do with process and project conditions. Failure might happen because the project is founded upon a badly negotiated contract. It might happen because the game is resting on an untested technology that proves incapable. It might happen because the scope is too large, or the tools the team is using don't work. It might be because the base assumptions about how players play are flat-out wrong. That last one is much more common than you think.

In particular, learn to avoid the urge to deny in the design phase, because most failure is seeded through bad design. Perhaps the root idea is weak, the mechanics are under-designed, or the IP is not a good fit for a game. The whole thing is just not thought through, or it's assumed that it'll work in prototyping. Or production. Or after open beta. Challenge early, before it's too late.

Though they will not admit it at the time, a year later in the pub most people from a failed project will drunkenly confess that they knew what was wrong. So did you. Neither of you said, but you knew. Above all, try not to be that person. Eventually, they learn to hate working in games.

Tadhg Kelly has worked in games, from tabletop to consoles, for nearly 20 years. Visit him at www.whatgamesare.com



Looking for a
new career in
videogames?
Start here:

jobs.edge-online.com

Design / Writing / Production
Localisation / Art / Programming
Interface design / Audio / Finance
Animation / Product management
QA / Usability / HR / Education
Marketing / Community management

EDGE

Edge's careers website features the best jobs in the videogame industry across the UK and around the world. Upload your CV today and let your future employers find you, or sign up to receive regular job alerts in your chosen field

In The Click Of It



CLINT HOCKING

Six spare bullets

Eighty kills ago, our determined hero did what we have all done at one time: he abandoned his hi-tech battle rifle in favour of the simple AK-47 used by the nefarious insurgents he is fighting. Now, almost fully loaded with ammunition, he walks over an enemy weapon on the ground. What happens?

Our hero is currently carrying his maximum load of six 30-round magazines (a total capacity of 180 rounds). His AK-47 is currently holding 17 rounds. The enemy weapon on the ground is also an AK-47, and it has a mag with 19 rounds. How does the ammunition distribute itself? There are many possible design approaches.

One approach is simply that nothing happens. The player does not have any room in his 'ammo pool' to pick up the 19 rounds, so the ammunition on the ground stays there. In this case, if the player were to press reload, there are also a couple of possible designs for what might happen next. A more 'old-school' design might have the player swap a 17-round magazine for a fresh 30-round magazine, and then require him to manage his inventory to swap the 17-round magazine for the 19-round magazine on the ground, or to consolidate the two magazines into one 30-round magazine. A more modern design would aggregate the magazines automatically when the player presses reload, topping the magazine in his rifle to a full 30 rounds with no inventory management needed.

In either case, there is the question of what to do with the remaining six rounds. One solution would be to 'clean up' the weapon and remove it from the game, in which case those six rounds would disappear. Another solution would be to drop the AK-47 and keep track of it as having six rounds left. Yet another solution would be to clean up the AK-47 for optimisation purposes and drop the remaining six rounds in a simple magazine object or a placeholder ammo box that is better optimised for rendering and physics simulation.

A completely different design for what happens when our hero first walks over the weapon on the ground is that 13 of the 19 rounds get added to a 'buffer ammo pool' that he is permitted to carry above and beyond his 180 maximum, which represents the empty space in



The designer's job is to sniff out these little details, and to not simply accept the default implementation

his current magazine. If the player pressed reload in this case, his magazine would fill to 30 and his 180 ammo pool would remain unchanged, but the six extra rounds would stay on the ground (the 'buffer ammo pool' is at zero when the current magazine is full). If he were to fire off one round, a single bullet would be drawn from the magazine he was standing on and be added to his buffer.

Other, weaker designs might simply automatically refill the clip currently in the weapon if the ammo pool is full, or simply allow the player to carry six magazines period, requiring him to juggle individual magazines while disallowing consolidation of partial magazines. Another design might do away with magazines, reloading

and ammo altogether, simply giving the player 180 rounds with this type of weapon.

By now, you're probably wondering why I'm discussing ammo management at such length. In fact, I'm not talking about ammo management. I'm talking about fundamental game design, using the familiar idea of ammo management as an example. My point is that even in the extremely tiny subset of the mechanical design of a highly standardised genre there are dozens of design decisions that need to be made, and that these design decisions are important.

I assume it's clear that a shooter where you carry 180 rounds with no magazines, reloading or ammo management will provide a very different aesthetic experience from one in which you have 30-round magazines, a 180-round ammo pool, and a (30 - CurrentMagAmmo) buffer. No one would mistake one for the other. Yet it seems to be less clear that having a buffer ammo pool or not, or cleaning up redundant weapons and replacing them with ammo boxes or not are also critical aesthetic decisions.

While it is true that decisions like these might represent variations on a theme, and that no single decision at this scale is likely to radically shift the overall feel of a game, I'd argue that the aggregate of all of these decisions is more important to defining the aesthetic qualities of a game than the story, setting or rendering style. Unfortunately, because of the small impact of these decisions, they're often overlooked.

More so than making decisions about which fictional country your imaginary war will be set in, the designer's job is to sniff out these little details, make sure they are designed correctly, and not simply accept the default implementation most easily generated using an existing code base, toolset or game engine. Failing to quickly (preferably preemptively) question whether a default implementation is the correct one from an aesthetic standpoint leads to us growing accustomed to whichever default implementation falls into place. Once this happens, envisioning the correct aesthetic, reverting and implementing a new design is almost impossible.

Clint Hocking is a designer who lives in Seattle and also writes about games at www.clicknothing.com

ONLINE REGISTRATION AND DISCOUNT ENDS **MARCH 12, 2014**

Learn something new. Network with your peers. Be inspired.
Forge business opportunities. Discover market innovations.
Gain insight into the future of gaming. Play unreleased games.
Meet someone you admire. Create a "remember that time" moment.

Join us in San Francisco March 17-21, 2014.

EDGE READERS,
USE CODE **GDC14EM**
TO SAVE EXTRA ON ALL ACCESS
AND MAIN CONFERENCE PASSES!

GDC 2014 AT-A-GLANCE

400+ CONFERENCE SESSIONS

(Monday – Friday)

Lectures, tutorials, bootcamps, and
roundtable discussions across 7 tracks
and 8 summits, led by top industry experts

DIVERSE EXPO FLOOR

(Wednesday – Friday)

Connect directly with company reps and
check out the latest gaming middleware,
hardware, software and product demos

BUSINESS & CAREER DEVELOPMENT

(Wednesday – Friday)

Make connections, gain insight, and get
advice at the GDC Business Center, Career
Center and the Game Career Seminar

PARTIES, EVENTS & SPECIAL EXHIBITS

(Monday – Friday)

NETWORKING OPPORTUNITIES

Playable games from top
emerging studios and developers
at GDC Play & IGF Pavilion

INDEPENDENT GAMES FESTIVAL

GAME DEVELOPERS CHOICE AWARDS

GDC

GAME DEVELOPERS CONFERENCE®

MOSCONE CENTER · SAN FRANCISCO, CA

MARCH 17-21, 2014 · EXPO: MARCH 19-21, 2014

REGISTER AT GDCONF.COM



Word Play



JAMES LEACH

The jolt of celebrity

A few years ago, I was forced to wear a dunce's hat for being the very last person in the world to realise that the father in *Fallout 3* was voiced by none other than Liam Neeson. This was not good because not only did the hat itch, but it spoiled the game a bit for me. Every time dad piped up from that moment on, all I could think was, 'That's Liam Neeson.'

Of course, he did a good job, as you'd expect – the fella's a world-class actor. But hearing him in a game, even in not-so-distant 2008, still fractured the immersion, to coin a phrase. It's an odd phenomenon, because I didn't watch the movie *Taken* and think, 'Hold up. That's Liam Neeson there, making those highly quotable threats on the phone.' No, I was more than happy to watch him run across someone's roof and shoot foreigners.

This odd phenomenon, which I have entitled The Odd Phenomenon, isn't because the famous person is miscast or has such a distinctive voice that it stands out jarringly. It's simply that games occupy their own worlds, and anything that intrudes unexpectedly from the real world stands out. Perhaps it's because I've worked on so many, and have had quite a lot of experience in casting and recording voiceover people, but I'll be happily playing a game and suddenly Brian Blessed booms from the speakers and instantly I wonder what he's doing there, followed in quick succession by who chose him, how much he got paid, and whether he hung around the recording studio afterwards to recount anecdotes. Suddenly, the game doesn't seem quite as exciting an experience.

There was a time – and let's call it the mid to late '90s – when meeting rooms in game development studios were full of people listing the famous people they'd like to use as voices in their games because a) they could afford to hire them, b) they believed it added a certain cachet to the product, and c) they wanted to meet them. It was, for a while, the sign of an unsure-of-itself industry hoping some A-list glamour would rub off on it.

For their part, in fact literally for their part, the actors who consented to be in games would know nothing. There was no script to learn beforehand,



The insertion of a famous dude in a game is like the moment when a celebrity walks into an American sitcom as a cameo

no story to get to grips with and no, as they might say, motivation. They'd turn up at the studio, get fawned on, ask who they were supposed to be and then read lines for a bit. Halfway through, they'd admit that they'd never played a videogame in their lives and tell a funny story about working with Richard E Grant. Then, when their two hours were up, they'd ask whether they could have a free copy of the finished game for their Mac SE.

Now, of course, that's not the case. Lend your distinctive tones to a blockbusting game and more people will hear your voice there than in the next film you do. Even actors, a notoriously dim and self-absorbed crowd, know that the game industry dwarfs the film industry.

But speaking of dwarfs (or dwarves), even young Elijah Wood, who of course Frodo'd his way bravely through numerous *Lord Of The Rings* games, caused me to stop and say, "Hey, that's young Elijah Wood." And suddenly the magic of Middle-earth was gone, and all I could think of was him sitting on a tall pile of cushions on an Aeron chair in a sound booth, his little head all but invisible sandwiched between the headphones, reading out lines from an Excel document. Funnily enough, when Mark Hamill crops up in games of any genre, I simply shrug and try to make it to the next save point.

So the problem, for me at least, is that the insertion of a famous dude (or lady; ladies can be famous too) in a game is like the moment when a celebrity walks into an American studio sitcom as a cameo. There's one of those inevitable pauses while everyone screams and cheers, then it's back to business, even though the audience is still turning to one another and saying, "It's him! It's really him!" (Or "It's her!" if it happens to be one of those famous ladies.)

The answer to this pressing problem that I – but apparently nobody else – seem to have is to not allow anyone famous to lend their voice talents to games. There's plenty of work for them elsewhere, and if they want to spend time dressed sloppily and sitting in a sound booth, then Pixar is always there.

If you must, absolutely must, hire a famous person to be in your game, do not crow about it. Hide their name at the bottom of the credits, or ideally leave it out. Let players briefly think that the NPC sounds a bit like Chiwetel Ejiofor or Ellen DeGeneres while they continue slaughtering the zombies and ill-advisedly sparing the spooky little girl in the bloody nightdress.

Better still, hire – still uncredited, of course – Ken Dodd to say four lines as a melancholic computer countdown sequence to self-destruct. Use Sally James out of Tiswas as the rampaging Troll Lord. And for your spooky little girl in the torn, bloody nightdress, book Joe Pasquale doing a Japanese accent and simply pitch-shift him down an octave. You're welcome.

James Leach is a BAFTA Award-winning freelance writer who works on games and for ad agencies, TV, radio and online



Image from Ryse: Son of Rome achieved with CRYENGINE®

THE POWER TO ACHIEVE YOUR VISION

Visit us at
GDC 2014
March 17-21
Moscone Center,
South Hall # 802

CRYENGINE® – THE COMPLETE GAME DEVELOPMENT SOLUTION

EQUIP yourself for the future of gaming now with CRYENGINE® – the only multi-platform engine that delivers state-of-the-art lighting, physics, AI, animation and fully real-time design tools, out of the box.

CREATE new gaming worlds using the production-proven real-time CRYENGINE® Sandbox™ editor and accelerate your development with the many features invented and pioneered by the world-famous CRYENGINE® team.

WORK with dedicated developers in the US, UK, Germany, China and Korea; benefit from Crytek's unique experience

in developing console and online games, to build benchmark-setting games in all markets.

JOIN our community of major game studios and more than half a million indie developers using CRYENGINE® to create some of the world's most popular online games and the blockbuster hits of the future.

ACHIEVE your vision with CRYENGINE®.

For more information, visit WWW.CRYENGINE.COM.





WANTED: FRESH BLOOD!

WE ARE LOOKING FOR

EXCELLENT PRODUCERS

ARE YOU AN EMINENTLY ABLE ASSISTANT PRODUCER? IF SO, WE WANT **YOU**. WE ARE ALSO LOOKING FOR A QA LEAD.

BRILLIANT ARTISTS


ARE YOU A COOL CONCEPTOR, 3D VISIONARY, OR AN ANIMATOR WITH A FLAIR FOR FLAILING FIGURES, **YOU'LL** FIT RIGHT IN!

AMAZING PROGRAMMERS

WHETHER IT'S AN EYE FOR AI, OR A FLAIR FOR FX, WE'RE LOOKING FOR THE **BEST**.

SO IF YOU ARE EXCELLENT, BRILLIANT, AMAZING OR JUST LIKE BLOWING THINGS UP, VISIT THE CAREERS SECTION ON OUR WEBSITE

stainlessgames.com



#265

March 13

